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UNIVERSITY OF PENNSYLVANIA

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ANNUAL REPORT  
OF  
THE PROVOST  
TO THE  
BOARD OF TRUSTEES

From September 1st, 1897, to September 1st, 1898

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PHILADELPHIA  
PRINTED FOR THE UNIVERSITY  
1898

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*To the Trustees of the University of Pennsylvania:*

GENTLEMEN:—It is once more my duty to submit to you a report of the administrative and educational work of the University for the year beginning September 1, 1897, and ending August 31, 1898. This has been in several respects a momentous year, and especially in personal changes, through death or resignation. The first to be taken from us by death was Dr. Harrison Allen, Emeritus Professor of Comparative Anatomy, who died November 14, 1897. His entire professional life had been closely identified with us; and in many ways, and during many years, he had rendered the University important service. An accomplished scholar, an active practicing physician, he was so intellectually industrious that he was able to take and maintain the highest rank among scientific men; and his fruitful labors ended only with his life. As Professor of Comparative Anatomy and Zoölogy, he was one of the original members of the Auxiliary Faculty of Medicine. In 1878 he was made Professor of Physiology in the Medical Faculty. He held this post seven years, and only resigned on account of the pressure of his private practice. On the death of Professor Joseph Leidy, Dr. Harrison Allen was requested by the Trustees to assume the duties of the Chair of Comparative Anatomy and the Directorship of the Wistar Institute, until the Trustees could make provision for permanently filling these positions. In recognition of these willing services, he was given on his retirement the title of Emeritus Professor of Comparative Anatomy. His memory and influence will be long preserved in the University and in the community.

When at the University of Edinburgh, in the summer of 1897, I was frequently spoken to concerning Dr. Allen's wide reputation.

Dr. George H. Horn, Professor of Entomology, died November 24, 1897. Professor Horn was elected to his Chair in 1889, at a time when the scope of the Biological School had not been clearly defined, and when it was supposed that purely natural history studies might find a larger place in its curriculum than has hitherto proved to be the case. No more capable entomologist could have been found than Professor Horn, whose reputation, especially in the study of coleoptera, was international. He was never called upon to give stated instruction, but his assistance and advice were always available to the Faculty and students who took an interest in his special field, and he left in the minds of his associates a happy and kindly memory.

The death, on March 16, 1898, of Mr. Thomas McKean, of the Class of 1862, removed from your Board one who had served but a very brief term, but who, in those few years, had manifested the deepest interest in the welfare of the University. His benefactions began long before his election to the Board, and were the fruit of his long and deep affection for his Alma Mater. They were the offerings of an alumnus who felt the more drawn to his University by the official connection with it of his early personal friends and associates; and who, the more he did for it, was the more and more personally interested in its manifold work. With perhaps no thought that death was quite so near, his last gift was of princely munificence. This gift has been applied by your Board so that his family name is linked in fitting and imperishable association with that distinguished ancestor who bore so large

and honorable a part in the early days of Pennsylvania and its University. McKean Hall, in the Law School Building, and the life-size portrait of the great Governor and Chief Justice will ever recall the eminent man whose name and lineaments are there preserved. They will also recall the large-hearted and generous alumnus and trustee whose liberality did so much to forward this and other University interests.

In mid-summer a great shock came to the University, and to the city, in tidings of the death of Dr. William Pepper, Professor of the Theory and Practice of Medicine, and of Clinical Medicine, and for thirteen years Provost of the University. Dr. Pepper died suddenly in California, upon July 28, 1898, at a time when the people most affected thereby were widely scattered. A few of us,—some coming from a distance,—attended the solemn services of his funeral; but only later, and outside the limits of this report, were the Trustees and other organizations able, in full number, to give expression to the sense of loss that so many deeply felt.

The action of the Board was as follows:

“Four years ago the Trustees of the University of Pennsylvania published and recorded on their minutes a testimonial of their appreciation of the work of Dr. Pepper during the thirteen years in which he served as Provost of the University. Regretting his departure from that office, they declared their satisfaction in the thought that it did not separate him from official relations to the Institution which he had served with such conspicuous devotion and ability, and their hope that in the Chair of the Practice of Medicine and in the Presidency of subordinate Boards there would still be many years of service congenial to him and helpful to the University. Since his retirement

from the Provostship that hope has been abundantly fulfilled in the fruitful labors that he has given in these various fields, especially in the Department of Archæology and Paleontology. At this, their first meeting after his death, the Trustees make record of their profound sorrow at its occurrence, and of their appreciation of what his life has been to the University. Graduated in the Arts in 1862, and in Medicine in 1864, he began his career as a teacher in the Medical Department in 1868. He became one of its first Clinical Professors in 1874, and succeeded to the Chair once occupied by his honored father in 1884. In reviewing this entire period and these various services, the Trustees gratefully recognize the loyal devotion, the unwearied labors, the consummate ability, and the generous liberality which Dr. Pepper constantly displayed, whether as Professor or Provost, and the enduring results of these to the Medical Department, the Hospital, and the entire University. They tender to his bereaved family the respectful assurance of their profound sympathy, and will ever cherish a grateful memory of him whose life was so closely and so fruitfully identified with the great trust committed to their hands.

“On motion of Mr. Dickson, it was resolved that a Committee of five be appointed to make provision for a memorial meeting in reference to the death of Dr. William Pepper, with authority to invite the co-operation of other institutions and societies with which he was connected. The Provost appointed as this Committee, Mr. Dickson, Dr. Mitchell, Dr. Furness, Mr. Harris, and Mr. Rosengarten.”

The meeting was held in the Chapel on the evening of November 29. The Governor of the Commonwealth, in his capacity of President of the Board of Trustees, pre-



sided, and made an admirable and sympathetic address. He was followed by Dr. S. Weir Mitchell, representing the Trustees; Dr. James Tyson, the Medical Faculty; Gen-Isaac J. Wistar, the Wistar Institute; Mr. Daniel Baugh, the Museum of Archæology and Paleontology; Professor Hampton L. Carson, the General Alumni Society; Hon. Frederick Fraley, the Philosophical Society; Dr. William P. Wilson, the Commercial Museum; Mr. John Thomson, the Free Libraries of Philadelphia; and his honor, Mayor Charles F. Warwick, on behalf of the City of Philadelphia. The addresses will be printed in full in the Proceedings of the American Philosophical Society, and it is intended to off-print from these a sufficient edition for general distribution, as one of the memorials of him who did so much for the City and the University.

On May 3, 1898, Professor C. Stuart Patterson announced his purpose to retire from the Chair of Constitutional Law and the Law of Real Estate and Conveyancing, at the end of the Academic year. For nearly twelve years he had held this position with ability, and for seven was the Dean of the Law Faculty. In that time and under his administration the Law School doubled the number of its professors, more than doubled the number of its students, lengthened its course from two to three years, and entered upon that era of enlargement and improvement which places it to-day one of the prosperous departments of the University. To Professor and Dean Patterson much of the present prosperity and efficiency are due, and the Board accepted his resignation with deep regret, and with the most cordial expression of its appreciation of his services.

Professor William S. Carter resigned the Chair of Comparative Physiology in the Veterinary Department,

October 15, 1898. During his brief term of office he had rendered excellent service to the School, and the regret felt at his departure was tempered by the satisfaction that it was to accept the important position of Professor of Physiology in the University of Texas.

In December, 1897, Mr. Gregory B. Keen resigned his position as Librarian, in order to accept a similar position in the Historical Society of Pennsylvania. Mr. Keen was a graduate of the Class of 1861, and was elected Librarian in 1887. His broad scholarship, his large acquaintance with books, and his fidelity to the increasingly important work of his position, as the library increased with the erection of the Library Building, were of the highest service to the University, and well deserved the warm expression of appreciation and regret which you accorded in accepting his resignation. Professor Morris Jastrow, Jr., who had for some years assisted Mr. Keen, was elected Librarian, and is maintaining its efficient administration.

Professor Edgar V. Seeler has resigned the Assistant Professorship of Design, in which he rendered very valuable service to the School of Architecture, and on several occasions to the University in its building operations. The work was congenial to him, but the rapid increase of his professional business forced him to resign the Chair, which is one of prime importance in the course in Architecture.

On assuming the office of Provost, and for the four years of my administration, I was greatly helped by the wise counsel and loyal assistance of the Vice-Provost of my own nomination, the Rev. George S. Fullerton. I have all along been aware that in rendering this assistance in administrative work Professor Fullerton was making large



sacrifices of the thought and strength which rightly belonged to his Chair, and to the well-chosen life work to which he is so adapted. I was therefore not surprised, although I deeply regretted it, when he tendered his resignation last March, and at the same time applied for a long leave of absence for recuperation and refreshing study. His services as Vice-Provost have been of great and enduring value to the University, and will be long remembered. We hope to welcome him back to the duties of his Chair at the beginning of the next Academic year, invigorated and ripened by his sojourn abroad, and that for many years to come he may adorn the position which he seems to have logically inherited from his own great teacher, some time also Vice-Provost, the Rev. Dr. Krauth.

The office of Treasurer has been subjected to an unusual, but unavoidable, number of changes in so brief a time. After a service of one year, in which he introduced many valuable improvements in the system of the office, Mr. Thomas Robins felt that he could no longer retain it and do justice to the demands of his personal affairs, and therefore resigned this position, to the regret of the Board, on March 1, 1898. He was succeeded by Mr. C. Emory McMichael, the Provost's assistant, whose close association and familiarity with the office enabled him to promptly take up Mr. Robins' work; but when the war with Spain broke out, Mr. McMichael, as an officer in the First City Troop, felt obliged to go to the front with his company, and therefore resigned the position. Your Committee on Finance and Property then nominated Mr. George L. Harrison, Jr., as also familiar with the newer methods of administration, and he was duly elected April 29, 1898. The Treasurer's bookkeeper, Mr. H. R. Lawrence, has con-

tinued at his post during these successive changes, and his skill and fidelity have greatly smoothed the path of those who one after another, and on brief notice, have entered upon this important and responsible office.

The first of the University charters (1753) required the Trustees to reside within five miles of the buildings of the Institution. This provision was repealed by the act of 1779, but so strongly had the custom of electing only citizens of Philadelphia become established that until the present year no one residing out of the county of Philadelphia had ever been elected to that office. It had long been felt that this was not in accord with the position of the University as representing the entire Commonwealth in the field of the higher education; or quite just to those portions of the State from which a good proportion of its students come. It was therefore determined by your Board that the vacancy caused by the death of the Hon. John Scott should be filled by the election of a representative man from the western portion of the State, and Mr. James McCrea, of Pittsburgh, was unanimously chosen for the position. It is hoped that this may be the beginning of a policy which shall give equitable representation to the different sections of the State, and, along with the multiplication of local alumni organizations, that it will help to extend and increase the influence and usefulness of the University to all parts of the Commonwealth whose name it bears.

The memory of the late Henry H. Houston is very warmly kept in the hearts of his colleagues on this Board, and it was with peculiar satisfaction that the name of his son, Mr. Samuel F. Houston, was received from the Central Committee of the Alumni as a candidate to fill the place vacated by the death of Mr. Thomas McKean. A

graduate of the University in 1887, he has always manifested a deep and active interest in its affairs, and his unanimous election and the cordial welcome which he received indicated your conviction that he would in that office find a congenial field of even greater devotion and usefulness to his Alma Mater.

## STATISTICS OF TEACHERS AND STUDENTS.

There has been an increase of 16 in the subordinate teaching force, so that the total of Professors, Lecturers and Instructors is 258, as against 242 a year ago. There has also been an increase of 23 in the number of students.

The statistics classified, as in my last report, and compared with those of the preceding year, are as follows:

### PROFESSORS, LECTURERS AND INSTRUCTORS.

	1896-97.	1897-98.
The College . . . . .	108	110
Department of Philosophy . . . . .	49	53
Department of Law . . . . .	10	18
Department of Medicine . . . . .	82	89
Auxiliary Department of Medicine . . . . .	5	4
Laboratory of Hygiene . . . . .	4	3
Department of Dentistry . . . . .	35	39
Department of Veterinary Medicine . . . . .	17	17
Emeritus Professors . . . . .	6	6
	<hr/>	<hr/>
	316	339
Duplications . . . . .	74	81
	<hr/>	<hr/>
Total . . . . .	242	258

### STUDENTS.

	1896-97.	1897-98.
The College . . . . .	917	938
Department of Philosophy . . . . .	161	155
Department of Law . . . . .	358	360
Department of Medicine . . . . .	920	882
Auxiliary Department of Medicine . . . . .	48	48
Laboratory of Hygiene . . . . .	29	23
Department of Dentistry . . . . .	373	432
Department of Veterinary Medicine . . . . .	50	48
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	2856	2886
Duplications . . . . .	45	52
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Total . . . . .	2811	2834

While a very large proportion of our students still come from the State of Pennsylvania, there has been an increase of 61 from places outside of Pennsylvania, and a decrease of 38 in students from the State of Pennsylvania. I subjoin, as before, a table giving the geographical distribution of our students for the year 1897-98. From this it will be seen that from the 2834, registered at the University last year, 1984 came from our own State, 762 from other States and Territories, and 88 from foreign countries.

## GEOGRAPHICAL SUMMARY OF STUDENTS.

Alabama . . . .	1	Japan . . . . .	5	Oklahoma Ter. . .	1
Argentine Rep. .	3	Kansas . . . . .	6	Oregon . . . . .	2
Australia . . . .	6	Kentucky . . . .	4	Pennsylvania . . .	1984
Austria . . . . .	3	Louisiana . . . .	3	Prince Edward	
Brazil . . . . .	2	Maine . . . . .	11	Island . . . . .	1
California . . . .	15	Maryland . . . .	20	Puerto Rico . . .	1
Canada . . . . .	17	Massachusetts . .	55	Rhode Island . .	17
China . . . . .	1	Mexico . . . . .	2	Russia . . . . .	4
Colorado . . . . .	2	Michigan . . . .	3	Scotland . . . .	3
Connecticut . . .	26	Minnesota . . . .	6	South Africa . .	1
Cuba . . . . .	5	Mississippi . . .	2	South Carolina .	4
Delaware . . . .	64	Missouri . . . .	9	Sweden . . . . .	1
Dist. of Columbia	10	Montana . . . .	1	Switzerland . . .	2
Ecuador . . . . .	2	Nebraska . . . .	5	Tennessee . . . .	8
England . . . . .	4	Nevada . . . . .	1	Texas . . . . .	10
Florida . . . . .	1	New Brunswick .	3	U. S. of Colombia	2
France . . . . .	4	New Hampshire .	9	Utah . . . . .	4
Georgia . . . . .	12	New Jersey . . .	171	Vermont . . . . .	7
Germany . . . . .	7	New Mexico . . .	3	Virginia . . . . .	8
Hawaii . . . . .	1	New York . . . .	116	Washington . . .	6
Illinois . . . . .	16	New Zealand . .	1	West Indies . . .	4
India . . . . .	1	Nicaragua . . . .	8	West Virginia . .	17
Indiana . . . . .	12	North Carolina .	11	Wisconsin . . . .	14
Iowa . . . . .	14	Nova Scotia . . .	3	Wyoming . . . .	1
Ireland . . . . .	1	Ohio . . . . .	44		
					<hr/>
					Total . . . 2834

## THE COLLEGE.

There is no part of the work of your Board upon which I like more to dwell than that of the College, and

the year just past has been the most interesting within my recollection. It is true that the numbers in the College do not as yet increase. That may be a question of time; but the work which has been done in the past four years, in liberally providing for the natural and wholesome requirements of a young man's daily life is already beginning to bear rich fruit. For the first time in the history of the University there are being educated at the College groups of young men in whose after lives the traditions and recollections of their College life will never be forgotten; who will love the College and University next to their own homes, and who, in the time to come, will be the mainstay and strength of the University itself. I cannot refer too strongly or too happily to the changed conditions which have been brought about in recent years by infusing a true University spirit into the lives of all of our students.

Reference has already been made to the fact that our College numbers have not increased; but with the care which has been taken in the entrance examinations, with the sifting which has been made as to special and partial students; with the honesty and integrity of the courses of instruction given; with the increasing sympathy which exists between teacher and student; with the known and the hidden influences of the new life of the University upon the student himself, the average quality of the student now with us is in every way far in advance of that average a few years ago. I can have no doubt that in the early years to come, the peculiar advantages of the University of Pennsylvania for College students will become more and more recognized and respected in the Preparatory Schools of this and other States. No other College is more favorably situated; none in a great city has such an estate;



nowhere can a student's life be more abundantly filled; nowhere, in all probability, will the spirit be happier, nor the influence more wholesome. And I confidently look to an early turn in that tide which carried students away from Philadelphia to other Colleges, because there has been but little of interest or attraction here. The causes which lead parents to send their sons away to College are manifold. I need not refer to all of them here. They are well known. I am not sure that a large city is more dangerous to a young man than is a small village. It has been said that the meanest vices exist in the latter. I do feel that hereafter a student's life is to be made so full and abundant and large, in our University city, that the standard of conduct of the best men in all the classes will be so guiding and influential that the noble College of a great Seat of Learning in an American city will be a distinctly safe and proper place during the critical period of a young man's passing from youth to manhood. I am sure that your Board will abate no effort to foster these conditions, and as this City and State come more and more to love, cherish and honor the University of Pennsylvania, so the accomplishment of your Board's purposes may become assured.

The relations of the College to the Preparatory Schools in general, and to several of them in particular, are of growing cordiality. One of the most serious problems in the opinion of our College teachers is the question of the relation of the College to the Schools. The link between the two is very long, very loose, and often entirely wanting. Partly, this is stated to be the fault of the College; partly the fault of the present status of the Schools. The College has looked upon itself in the past too much as a thing apart. Its relation to the Schools, alike public

and private, should be such that all who have the mental power, and desire to go further than the Schools, should find a door of entrance abundantly ministered unto them. The Schools whose position in this matter is the result of historical circumstances, should also, on their part, so adjust their courses, and all their courses, as to recognize that they do not close the work of education; but while they are giving the best that can be given within the limits of age, necessarily imposed upon them, they are at the same time, and by the same work, preparing such pupils as can go higher for such further advance.

We are all very desirous of coming into the closest relations with the Schools. For this we are always ready; and the way will become easier and easier, not only as the College grows in their respect, but as we send into the Preparatory Schools from our Graduate School teachers who have lived some years of their life at this University.

In general I may say that the work of the College has been serious, and that the students have adapted themselves cheerfully and earnestly to this serious work.

There has been no change in the organization under which the College has been conducted. The Academic Council, composed of representatives of groups, or related groups, of subjects, has continued to perform its functions easily and without friction. The courses of instruction have been enriched and added to by the establishment of two new groups to be opened at the beginning of the academic year, so that in the Junior and Senior years in the Course of Arts and Science there will now be fifteen groups of electives. These two groups are the Chemistry-Geology, and the Botany-Zoölogy.

Quite a reform has been carried into effect since my last report in the matter of student absences. As absences

are considered not so much from the standpoint of discipline as from the point of view of their influence upon scholarship, the Academic Council passed a rule making obligatory attendance upon eighty per cent of all subjects. Under this rule, a student absent from any cause whatever for more than twenty per cent of the hours in any given course in a term, is marked "Not Passed" in that subject. This method, as the Dean says, has thrown upon the students the responsibility of looking after their own absences, within reasonable limits, and has removed a great difficulty adhering to the old system of requiring an excuse for each hour of absence—a system which was not only liable to abuse, but which imposed a great amount of unnecessary labor upon the Dean's Office. No student has been dropped on account of absence conditions alone; although some students have been dropped who not only had failed in the necessary passing in at least two-thirds of his subjects; but who also had been absent more than twenty per cent of his hours.

The principle of student self-government has been further emphasized by an enlargement of the Student Committee, which now consists of a more representative group. This Committee of ten—four Seniors, three Juniors, two Sophomores and one Freshman—now represent the students on all questions touching student life, and with the consent of the Dean, undertake to settle many matters which otherwise would become matters of discipline. The Committee is an important one and occupies an important place in the College.

While the spirit of the student body has been high, the order of the College has been unusually good, and this result is to be attributed to the personal interest and patience of the Dean, and of some of his colleagues. As



one comes more and more into contact with the daily life of the University, one soon gets to know the men whom the student body recognize, not only as their teachers, but their friends. I know of no cause which will more quickly build up a fine sentiment at the College than this manly interest in the welfare of the individual student—an interest in his trials as well as in his successes.

I refer in another place to the report of Dr. Miller, the Director of Physical Education. Dr. Miller has been most particular in watching the health and physical well-being of College students. By requirement of the Academic Council, every new student has been obliged to have his eyes examined, and this rule has been productive of very good results. The student body, as a whole, at the suggestion of Dr. Miller, undertook to raise a fund to properly furnish a special ward in the Hospital for students in the University who might be ill. This ward was set apart, by the courtesy of the Hospital Managers, and is a quiet, convenient and well-ordered infirmary. At a small expense, all our students have now, in case of sickness, the advantages of trained nursing and medical skill,—a result which your Board at first anticipated could only have been achieved through large expenditure.

At the breaking out of the war with Spain, it was not necessary to teach our students what patriotism was. Without regard to any other fact than that their country called them a number of undergraduates enlisted. Nineteen students went from the College, and one (Mr. Elliot) died of typhoid fever. Four members of the College Faculty also entered the service. I am glad to say that three of them are at their posts again. The Instructor in French, Dr. Page, tendered his resignation because of his desire to

continue, at least for the present, in the service of the Government.

In my last report I called especial attention to the Undergraduate Courses for Teachers. These courses have been, in the past year, under the control of the College Faculty, and have continued to be exceedingly prosperous. I have reason to know that they are producing most excellent results among the teachers, more especially of our Public Schools, and I am sure that through them the University is greatly aiding the efforts of the Superintendent of Public Instruction and the Board of Education, both in improving the equipment and the power of the teachers. We are peculiarly fitted to conduct these courses, and are glad to be of service to a class of the community in whom the University has the warmest interest. These students come for the work, and for nothing but the work, and for what they may gain from it, because the University promises no degree. I may refer, too, to the element of personal contact which enters into the relation of students taking the Teachers' Courses and their instructors. This personal contact gives inspiration and guidance which no correspondence methods may compass. It is personal contact with the teacher, and not only the matter of education, which an active, real student needs.

As a conclusion, while I feel quite sure that a number of our courses may be strengthened and improved, I end this year with high hopes of the future of the College.

#### BIOLOGICAL DEPARTMENT.

The Dean of the College has, in his report, called attention to the further equipment of the Biological Department, by the erection of five new green-houses. It is true that these green-houses, with the varied collection of

plants now grown in the University Botanic Garden, more fully meet the requirements of our students. But the importance of the Biological Department, and of the Botanic Garden surrounding it, and its claims to public recognition are so serious that a fuller statement appears to be necessary.

When the present building was constructed, about fourteen years ago, the claims for recognition of Botany and Zoölogy, as important branches of University education, were just beginning to be felt in this country. Harvard University alone appears to have recognized that Botanical and Zoölogical teaching were of equal value and of paramount importance in a liberal education. The magnificent suites of rooms, laboratories and museums now erected at that university are an object lesson to every visitor, and indicate the lines of progress for other institutions.

We have succeeded in establishing a small teaching Botanic Garden, which is becoming better and better equipped, and which has already formed the basis of elaborate original communications. But this should be only a beginning in the University's work in its Botanical Department, for few departments of University work have given better returns of practical value to mankind than has this. We have but to observe the discoveries at the gardens of Edinburgh University, or to mention those at the Kew Gardens, to recognize that there must be leading centres for the receiving, experimentation upon, and distribution of, economic and medicinal plants, which are from time to time being discovered, or whose value is being recognized.

Pennsylvania is the only important State in which but little work of this kind is being done,—and in it, nothing

except at the University of Pennsylvania. It is of the first importance that our teaching and facilities should be extended so as to include instruction in the applied branches of horticulture, agriculture and forestry,—subjects which are liberally provided for and taught in all the leading European Universities. In this country I may cite the excellent work of the Arnold Arboretum, of the Cornell University Station, and of the New Brunswick University Station.

I venture to hope that the Botanical Society of Pennsylvania, which holds its meetings at the University, and which is now a well organized and greatly interested body of men and women, may seriously consider, as their special contribution, the providing of the University with proper buildings, with suitable lecture halls, laboratories and museums. Here may our growing collections be safeguarded, some of which are unique and of great value.

The courses of instruction in both Botany and Zoölogy have been multiplied; many distinct undergraduate courses are now given, both in Zoölogy and Botany; and instruction to advanced students—not attempted a few years ago—is given in both these branches, covering many fields. I am very glad to be able to say that just as the Department of Botany has been helped through the growing Botanic Garden, so the interests of the Department of Zoölogy have been helped by the gift—by one of our townsmen, Mr. Harlan Page—of the means to build a Vivarium. Here may be studied problems of a purely scientific character; as, for example, the life habits and anatomy and embryology of various groups of animals; their probable ancestry and genetic affinities. But while these questions are purely scientific in interest, no one who has watched the course of scientific inquiry can

doubt that they will in time become questions of the utmost economic importance. We shall hope to study at the Vivarium not only such fundamental questions as these, but to take up those of a more practical character, such as the life history, development, and artificial propagation of food fishes. There is much similar work that has never yet been undertaken. All such work as this is serious and earnest University work, and I am sure will meet the approval and confidence of the State. Besides this, both Zoölogy and Botany are accomplishments helpful to every medical man. As has been said, "They are the historic children of medicine."

I have no doubt that, as the resources of the Biological Department grow, many more students will take the two years' course, preparatory to Medicine, and fruitfully spend these two years in our Biological work.

### THE GRADUATE SCHOOL.

An examination of the report of the Dean of the Department of Philosophy shows but a small number of changes during the past year, but these are very important in character, and will doubtless prove far-reaching in their effect.

The first of these touches the point of "Admission and Candidacy," as it is expressed in the Dean's report. The new regulation provides that any baccalaureate degree in Arts, Letters, and Pure or Applied Science, which has been granted by a college of recognized standing, shall entitle the holder of it to admission as a student in the Department of Philosophy. From this class are expressly excluded, however, degrees in Music, Law, Theology, Medicine, Dentistry, Veterinary Medicine and Pharmacy. Such admission to graduate work does not carry with it candi-



dacy for a higher degree. This is a matter for separate determination, upon application made to the Executive Committee, which will judge the cases as they present themselves upon their individual merits.

The first change to be noted in these new provisions is the separation of the two quite different questions of admission and candidacy. In this separation we have but followed the example of other leading institutions, and it has been wisely done. That the college work of an applicant has been well and satisfactorily done is good reason for allowing him to try his hand at scholastic work of a higher order. The diploma that he holds, and the desire he manifests for further study, give evidence of earnestness of purpose, and more than this cannot be asked properly, or with any guarantee of an adequate answer at this stage; they do not, however, necessarily show in the applicant the possession of the peculiar abilities and qualities that are required for success in graduate work. The ideals and methods of the College are very different from those that govern the higher work, and it is quite possible,—indeed, is frequently the case—that a student who has passed through the college course with credit has not the bent of mind that would fit him for pursuing with advantage the studies of a Graduate School. His desire for further study may be a misleading ambition; his talents rightly appreciated may point in quite a different direction. It is therefore desirable that these questions should not be confounded in a single decision; but that the more difficult and delicate one should be settled apart from the other on the only pertinent evidence that can be had, the proved adaptation of the student's talents to the character of the work he is so anxious to do.

The enlargement of the list of baccalaureate degrees

which admit to our graduate courses puts us again, as the Dean remarks, in a line with the other prominent institutions of learning. It may be observed that this list has been made to include only those degrees which are given at the close of what are generally regarded as college courses. This may be regarded as a corollary to the change that has been spoken of above. Qualification for a higher degree is largely dependent upon individual capacity, and only in a minor way upon previous training. This being the case, it seems well to recognize the possibility that a fit candidate for a higher degree may come to the door of the Graduate Department by way of any of the generally recognized college courses. Now that his graduation from College does not guarantee to him candidacy for the higher scholastic degree, there is no adequate reason for refusing him the opportunity to demonstrate by further and purely scientific study his possession or his lack of the qualifications that are prerequisites for this higher degree.

The establishment of Honorary Fellowships is a manifestly excellent innovation. It is a natural result of existing conditions that the various institutions of higher learning should differ somewhat in detail in the provision they are able to make for original work in various directions. Differences or peculiarities of library equipment in various subjects, or of laboratory equipment, the known bent of individual instructors, accidents of endowment or peculiarities of benefactors, all contribute to this. It will occur then that qualified persons who are desirous of doing some special work of research, and are in need of a properly equipped institution for this purpose, will be attracted, some here, some there, by reason of these differences. It is desirable that all possible facilities should be opened up

to such persons for the prosecution of their work. No better way of furthering the advancement of science can be imagined. It is fitting, however, that such persons should, on their side, furnish proof that their qualifications are adequate and their purpose is earnest. Once admitted, they should be made to feel, by our treatment of them, that they are a part, and a valued part, of ourselves. The Honorary Fellowship, as defined in character and purpose by the Dean, seems fully to meet the requirements of the case.

In my last report I touched upon the large number of applicants for fellowships for women. It is gratifying to be able to note the new Alumnae Fellowship for Women that has been established by the Alumnae and other former women students of the University. This fellowship, which is guaranteed for three years, is in its money value to the holder and the conditions that govern it analogous to the George Leib Harrison Fellowships. In this only does it differ from them, that the holder may work at any university, either here or abroad.

The Dean has fittingly expressed, in words to which I heartily subscribe, his sense of grateful acknowledgment to those women for the work they have done. The spirit of loyalty they have shown promises more for the success of our graduate work for women than can be measured by even this notable result of it.

A peculiarly gratifying feature of the Dean's report is the account of the work that has been done during the past year by the Senior Fellows, more particularly of the original work, already published, or shortly to be published. It was chiefly with a view to just such a result that these Senior Fellowships were established under somewhat novel conditions. We have now tangible evidence of the



fruitfulness of the establishment. So good a beginning promises well for the future: the work already done will inspire to further efforts, and a spirit of healthy emulation will be created between departments and individuals that cannot but react upon the scientific life of the institution at large.

In the table given by the Dean, a slight decrease is found in the total number of students in attendance during the year. It is gratifying, however, to observe that this does not affect the class of regular students, in which, indeed, a slight increase is apparent. It is only among the special students that any really noticeable diminution has occurred. This seems fully accounted for by the reasons given in the Dean's report. It must be remembered that the work of the department must be gauged chiefly, if not solely, by the regular students. As these have not fallen off, in spite of the increased strictness of the requirements as to attendance and attainments, we have every reason to be satisfied with the showing.

Of peculiar interest is the table which shows the number of institutions from which our graduate students have come. As might be expected, our own College largely outstrips any other single college, but it is worth remarking that it furnishes, after all, but a comparatively small proportion of the total number. While a considerable number of the remainder represent colleges of Pennsylvania and other States of the eastern section of the country, there is still a fair sprinkling from more remote districts, as far as can be judged from the colleges at which they graduated. This is a healthful sign; it is to be hoped, and it is, I think, reasonable to believe, that our graduate work will continue increasingly to appeal not ineffectually to the country at large for recruits to its body of students. This is at it

should be: the graduate work, unlike the undergraduate, should be in touch not with a field geographically or otherwise limited, but with the whole community of scientific aspirants throughout the land. The conditions are very different from those that obtain in the College: differences of age, of maturity, of purpose, separate the two bodies of students, and control largely the question of attendance. It is one thing for a young man of but eighteen, or from there to twenty-two or thereabouts, with a mind and habits largely as yet in the forming, with no serious purpose guiding him, restraining and controlling all his habits and actions, to be removed to a distance from his home and friends for several months at a time, to be thrown into the midst of new and untried circumstances and companions. It is quite another for one of twenty-two or three, and upwards, who has come under the impulse of a definite aim and a controlling purpose, with habits more fixed and rooted, and a knowledge gained by experience of the varieties of character and circumstance with which he is likely to be brought into contact. Moreover, the graduate student, serious himself in his purpose, will most likely rub shoulders with men as serious as himself: the undergraduate, with equally inexperienced and impressionable classmates. The graduate, in a word, is a man already, fit to begin finding for himself; the undergraduate is but a man in the making, with the risks of marring. There are dangers that should be minimized in the one case; risks that should be run and faced in the other. The danger to be minimized lies not in the fact of absence from home: that is in very many cases a good thing; but in the remoteness of the home, with its necessary result, that home influence may be too slow of foot in critical moments. For these reasons a college cannot—one should

perhaps say, should not—expect to draw very largely from distant regions. Nor is it necessary that it should do so. Colleges are widely and thickly scattered over the land, which in the main supply quite adequately each to its neighborhood the demand for education of that grade. Graduate instruction is not so easily provided for that it should be possible to equip institutions with all the libraries and laboratories necessary for giving it, in every section or sub-section of every State. Nor if it were, would the student population of the several districts be large enough to warrant the expenditure? Such institutions must be (as compared with the colleges) few, and must draw their students from wider areas. Migration of students from university to university—a practice never likely, and certainly not to be encouraged, on the part of undergraduates, but one that seems to many minds to offer great advantages to graduate students—will also, if it ever become even tolerably prevalent, tend to the same result. An examination of the lists of students in the more prominent colleges, in those which are popularly believed to stand for the country at large and not for a section of it, will, I think, show that a surprisingly large percentage of their undergraduate population is drawn not only from the particular State, but even from the particular district in which the College is situated. These considerations would seem to show that it is the duty laid upon the College to cultivate with peculiar diligence, “the garden” in its immediate vicinity; but that of the Graduate Department to reach out to the ends of the land.

#### DEPARTMENT OF LAW.

I beg to call your especial attention to the very full report of the Dean of the Department of Law. Through

the courtesy of the authorities of the City, the work of the Department is still carried on in the public buildings in Independence Row. It is a curious fact—and one not without reproach to us all—that the study of a science so fundamental to the social order as that of the Law, should never have been pursued in its own University Law School Building. As a matter of fact, this Department has had a vagrant existence. It has been moved from one place to another, as circumstances demanded. Its history and its daily life have been separated from that of the University. It has been at the disadvantage of breathing an atmosphere all its own, without sharing in the greater life of the University as a whole. It is now a matter of more than common rejoicing that this reproach is at last to be lifted from us. Since my last report, your Board has purchased the important lot at the corner of Thirty-fourth and Chestnut Streets, in juxtaposition to the University, for the “University home” of the Law School. The Faculty of Law, with their Dean, have prepared the plans, with exceeding patience and minute study; the architects, Messrs. Cope & Stewardson, have been not less exact and interested than our own University circle; and within a very short time after the writing of these words, ground will have been broken for the most important and dignified building for the study of the Law which will yet have been erected in the United States. The Bench and Bar of Philadelphia have been liberal in their gifts of money, and while a large amount still remains to be secured, a sum has been raised which makes it entirely safe to begin the work immediately, and prosecute it, without any delay, to a conclusion. In the interior plans of the building, arrangements have been made for the individual accommodation of six hundred undergraduate students. But very much more

than this has been provided for by the Law Faculty and by your Board. The accessions to the George and Algernon Sydney Biddle Library, through the continued gifts of the Biddle family, and through the purchases from University funds, have raised this Library to one of the first rank. With the funds available for its further increase and development, it is only a question of time when it will be in the very first rank, and one of the great Law Libraries of the world. On account of this fact the new building has been planned so that especial provision will have been made for the use of the Library by all members of the Bar—either by those resident in Philadelphia, or by those outside of Philadelphia, who may wish to consult it. Further than this, the Faculty of Law have expressed their earnest desire that the study of the Law, as a science, the preparation of text-books, or of legal essays upon any particular question, may be here carried on; so that through the University and its Law Library and noble Law School Building, Philadelphia may become a “recognized centre of legal learning and legal research.”

The Dean informs me that there was a considerable percentage of men in attendance during the last Academic year who had not the preliminary training needed to enable them to fully enter upon the courses of the roster. The further increase in the entrance requirements will again limit the number who succeed in entering. We may therefore look to see the incoming class stationary so far as numbers are concerned, but with the certainty that those who are admitted will be of higher grade, and able to take full advantage of the thorough and advanced instruction which is now afforded.

The work of the Department throughout the year has been earnest. The increase in the entrance requirements



has been followed by stationary numbers, and this cannot but be regarded as a healthful sign.

I share in the general belief that as soon as we shall have removed to the new Law School Building, and as soon as our students of Law shall be able to share in the general life of the University, so stimulating and attractive will be their then surroundings we will draw to us the most fit of the young men seeking to become members of the Bar, and with adequate preliminary training, so that the hope and expectation of the Faculty of Law may be realized in a body of students much more nearly upon the same intellectual plane than has been possible under the conditions hitherto existing.

The development of the courses of instruction has further progressed so that, in regard to the range and quantity of instruction, we are now upon a level with that given by other universities. In 1893-94, but seventeen and one-half hours per week, with a shorter scholastic year, were given to all classes. In 1896-7, this had been increased to thirty-one hours per week, and a longer year. In 1897-98, there were forty-one hours per week of regular instruction. We have probably come nearly to the limit of the hours to be given, so that the attention of the Faculty will be more devoted to the courses of instruction themselves.

The percentage of students holding college degrees has remained unchanged, and was thirty-one per cent. This percentage will probably increase with the increased entrance requirements. The results of the year show that the men who actually passed the entrance examinations have done much better work than those non-college graduates who entered on certificate without the examination. Further, the examinations in course show that the college

trained student is able to profit, and does profit, more by the instruction offered than the non-college graduate. The percentage of "conditions" per man is nearly one-third more among the non-college men than among the college graduates, and the percentage of honors awarded to the latter is quite in excess of those won by the former.

During the year the work of the School as a teacher of the Common Law has been supplemented in one or more practical ways. There has always been a difference of opinion as to whether the theoretical instruction of a Law School was sufficient for the time being to the law student; or whether the knowledge of practice required immediately upon admission to the Bar shall be given during the student's three years. I have heard the subject discussed pro and con at one or more Law Schools of this country. Our Faculty of Law has decided with unanimity to introduce a Course of Practice, so that the law student shall obtain information while with us in regard to the bringing of suits and the drawing of papers in a lawyer's office. As is stated by the Dean, our students will now receive not only systematic instruction in the theory and practice, but a thorough practical drill, as thorough as was at one time received in the best lawyers' offices.

The progressive spirit which animates the Department of Law has called into action a further advance in helpfulness to the whole student body. I refer to the systematic arrangement for the "quizzing" of students. This important work, so helpful, is now undertaken by the Department itself. All of these thoughtful arrangements have resulted in a fine spirit of loyalty to the University, and of response by the student body. While for a short time yet, some distance removed from the rest of the Uni-

versity, we have no more loyal student body than our undergraduates in Law.

I have already referred to the notable accessions to the Biddle Library. I cannot close this review without recalling the original gift to your Board. The death of Arthur Biddle, the brother of George and A. Sydney Biddle, brought a climax in the dispensation of early death which was the lot of all three of the sons of Mr. and Mrs. George W. Biddle. I need not refer to them as three young men in a class almost by themselves. Since the death of Arthur Biddle, his widow has presented to us the Library of Mr. George W. Biddle, acquired by her for the purpose of this gift. I desire to make the suggestion for your Board to consider, as to whether it is legally possible to name the Library the "George, Sydney and Arthur Biddle Library," so that the name of the last to leave us may be added to that of his two forerunners.

While continued progress and striving for an ideal condition must continue to be our aim, not only in the Department of Law, but in every Department of the University, we may all look with content and satisfaction to this part of our work during the year.

## DEPARTMENT OF MEDICINE.

We are to be congratulated on the continued prosperity of the School of Medicine, despite the rising demands involved in the entrance examinations. So far as the number of students in attendance is concerned, the total shows a loss of about five per cent, as compared with the record of the preceding year; but the increased requirements for admission, and the present fee, may account, and probably do account, for the small lessening in number.



The Dean calls attention to a very interesting movement in the percentage of College graduates in the first-year classes during the past six years. It has been rather upon our minds, I think, that with the increased entrance requirements there would be a corresponding increase in the percentage of students holding academic degrees. On the other hand, there is quite a decrease in this percentage; but it is also observable that there is a marked increase in the number of those who have been in attendance during some part of a College course, either for one, two or three years, or who have been in attendance at an approved High School or Normal School. The explanation of the movement seems to me to be due to the question of age. It will be seen that the average age of the College graduate entering the first year of the Medical School was twenty-three. This means that these men must be quite twenty-seven years old when they shall have obtained their degrees in Medicine. And this is quite too much to expect. It means, therefore, that students intending to study Medicine leave College either at the end of the Freshman, Sophomore or Junior year, in order that they may not be more than twenty-five years of age when they shall have been graduated from the Medical Department.

The end which your Board has in view is, I have no doubt, that the Medical Department shall become one of our Graduate Schools; that is, that the largest percentage of its students shall in time hold academic degrees, and that they shall be graduated in Medicine at twenty-five. At present this may be accomplished, I think, by providing that the course in the College and in the Department of Medicine shall be arranged as a seven-years' course. The average age of the Freshman Class, after due co-operation with the Schools, ought certainly to be possible

at eighteen. The Medical Faculty have already arranged that College students who shall have taken a certain number of hours in prescribed subjects shall be admitted to the second year of the Medical course; so that it is indeed now possible for a student to enter the College at eighteen, and to be graduated in Medicine at twenty-five. How long this may continue to be the case as at present, is uncertain, for it may be that the instruction given in the first year of the Medical course may be materially changed, and chiefly consist of practical instruction, for example, very largely in anatomy; and such subject or subjects would not, perhaps, be possible during the student's life at College. In a word, the same difficulty may have to be overcome in future, in shortening the two periods, as is the case at present in the consideration of the question of shortening the period between entrance to College and graduation at the Law School. Both of these problems will have the deliberate and judicious study of the Medical and Law Faculties, to the end that, if possible, the total of the two terms may be abridged by one year to the student who is graduated from the College of the University, or from one of similar grade.

I desire, however, to call the attention of your Board more particularly to another subject. There are many who feel assured that at some not remote day the didactic lecture must practically disappear, as regards many branches. At all events, we may reasonably ask ourselves whether this means of instruction should not be sharply questioned, so that we may ascertain if its value be now what once it was. I feel that we should incessantly question our methods of instruction. The day has passed when the lecturing professor possessed that knowledge of his art which no text-book held; and we should therefore ask ourselves

if it be not wiser to lessen the number and shorten in length all the didactic courses. Admirable text-books make this possible to-day. I feel very keenly, therefore, now that the question of a proper home for the Law School has been settled, that one of the chief duties, if not *the* chief duty, of your Board is to provide immediately for this change which is taking place from didactic to practical instruction. Great, therefore, as are the needs of the University in very many directions, I am quite willing to postpone the accomplishment of many of them in the interest of new Laboratories for our Department of Medicine.

We are now established in Medical Chemistry, with an ample Laboratory. We have a good Bacteriological Laboratory, needing only enlargement in the interest of individual work, and to prevent duplication of instruction. But, in the strictly "Medical Laboratory" work,—namely, that in Pathology, Physiology and Experimental Therapeutics,—we are still restricted to the rooms set apart twenty years ago in Medical Hall; and, therefore, one of the great and instant needs of the Medical Department of the University is a Laboratory Building assigned for these three purposes, of sufficient size to give room for individual student work in our large classes, and such other room as may be needed for the prosecution of research work by our Professors and graduate students. Such a building will have to be fully equipped, with the most modern apparatus for individual work. This may seem to be a large demand; but it is one which must be filled; and certainly with the high credit which our Medical Department has, with its notable history, with the thousands of graduates who represent it in every corner of the land, with the great public influence which they have, the provision of this need should not only be not difficult, when

shared by so many, but it should be an easy and happy opportunity. I have no doubt at all that the Alumni of the Department will help your Board in the most earnest way to the early consummation of our desires.

There are many other matters in respect to the new Medical education to which I might fitly refer, and as to the type of man who is to be the physician or surgeon of the future. I can best say what I wish to say by referring anyone into whose hands these pages may fall to the essay on "Medical Education of the Future," by the President of Harvard College, republished this year among the essays and addresses upon "Educational Reform" of that far-seeing man.

#### THE WILLIAM PEPPER CLINICAL LABORATORY.

The report of the Assistant Director refers in detail to the Staff of the Laboratory, and to the original contributions of these "Associates." It will be remembered that the Laboratory of Clinical Medicine was presented to the University as an integral part of the University Hospital. From the Hospital it receives its material for investigation, and it clearly has a unique opportunity to pursue investigations of an original character, and to do a significant work towards the advancement of Medical Science. That this opportunity will be well used is now assured, not only through the interest which the Director and the Associates are taking in their special sphere of work; but, as I have the pleasure of learning from the Director, through ample financial contributions which have been made, not only to continue the work as hitherto planned, but to enlarge it. A benefactor, who insists upon being unknown, has agreed to make an annual contribution of \$8500, with the ex-

pectation of converting this sum into a fixed endowment. As this benefactor knows that the results of investigation at moderate money cost have been in many single instances worth more to the race than the whole expenditure of any or all of the institutions of learning, we may well expect that a great blessing will follow this sympathetic and memorial gift. The objects of the Laboratory have been further promoted by the liberal gift of Dr. Woodward, lately one of its Associates, who is contributing an annual sum towards the salary of an Associate in Physiological Chemistry, a sum which Dr. Woodward intends to convert into an endowment for the safeguarding of research in this very important direction.

#### THE UNIVERSITY HOSPITAL AND SCHOOL FOR NURSES.

For the purposes of this report it is unfortunate that the hospital year does not coincide with the academic year; and the report of the Secretary of the Board of Managers, presented as appendix —, could only formally cover the period up to December 31. This must be borne in mind at several points in perusing that report, especially in that referring to the legacies and donations received during the year. Since January 1, there have been others, as noted in the Treasurer's report; and since that date also the Hospital has had the unique experiences growing out of the war. The initiative taken by the City of Philadelphia in sending a hospital train to bring her own soldiers from unwholesome Southern camps to the local hospitals was promptly followed by our own Hospital. Wards B, D, H, N and M were set aside for the use of the sick soldiers, each ward being adapted, so far as possible, to the treatment of a particular form of disease. The force



of nurses was of course largely increased. Six special trains were sent out by the University, to Camp Meade, Camp Alger, to New York, and to Knoxville, fully equipped with physicians, nurses and hospital stores, and the relief thus given to the sick was of infinite value, and sometimes the deciding condition of life or death. Nearly three hundred soldiers received treatment, and the ability of the Hospital and its staff to meet a sudden and great emergency was demonstrated most happily. The new Nurses' Home will be practically completed by the time this report is in your hands, and the enlarged quarters thus provided will be of inestimable value to the Hospital. This will be so not only in view of the necessary increase in the number of Nurses, but equally because Hospital Nurses can only be of the highest efficiency when their lives are under the best and most hygienic conditions. I cannot too warmly commend our fellow-workers, the officers of the Board of Managers and the Women Visitors. Their devotion of time, and thought, and actual labor, to the great interest entrusted to them is not exceeded in any Department of the University, and the results are gradually becoming visible, in such structural improvements and administrative conduct as securely place our Hospital in the first rank. The means at their disposal are so inadequate in proportion to the demands of a hospital with 320 beds that only the sincerest devotion and the best business management secure the results which have been obtained. I earnestly hope that these may meet their temporal reward in such enlarged appreciation by the State, the City and the community, as will bring more abundant means into their hands for the maintenance and enlargement of their important work.



## LABORATORY OF HYGIENE.

In the consideration which your Board is always giving to the question of the many ways in which the University of Pennsylvania may in larger measure be of service to the State of Pennsylvania, the importance of the Laboratory of Hygiene has not been overlooked. With your sanction, therefore, I offered to the authorities of all the principal cities and towns in the State the facilities of our Laboratory of Hygiene. I wrote an official letter of advice, calling attention to the establishment of this important Laboratory of Hygiene, under expert direction and with competent assistants. I informed the several authorities of our wish to offer at the Laboratory the free services of the University Staff to local health authorities in all questions of sanitation. This was done under the belief that prolongation of life, mitigation of suffering, and prevention of disease would follow a systematic and scientific co-operation upon the subject. I made at the same time the practical suggestion that at every important centre in the State there should be established a Laboratory for sanitary investigation,—these laboratories to be under the control of the local health authorities or the State Board of Health, as might be deemed best, and certainly under the immediate supervision of a Medical Health Officer, certified to have received instruction in the practical methods of Hygiene which would enable him to render to the State or local Board important aid in the solution of many of their sanitary problems. My hope was that the University's Laboratory of Hygiene might be the centre of such a system, holding itself in readiness to afford all assistance in our power to the State Laboratories, in the event of questions arising in which such help would be desirable.

The proposition of your Board was submitted to the State Board of Health before its communication to the several civic authorities.

While I regret to be obliged to say that, as yet, very little interest has been taken by municipalities of large or small population in this important offer of the University, I am glad to be able to say that the State Board of Health took great interest in your proposal and urged its importance to local health authorities throughout the State.

To me this official action has seemed a matter of true and pure University work. That the necessity exists for having in each considerable centre of population, in connection with the local Board of Health, a physician with special training in modern methods of sanitation, is every day becoming more apparent, and will soon be demanded by the people. Undoubtedly the State Board of Health will make the possession of special knowledge and skill in chemical and bacteriological examinations,—for example, as of water and of food products,—a necessary qualification for its own appointees.

I trust that during this academic year the Director of the Laboratory of Hygiene may have the opportunity to visit personally some of the larger cities and towns in Pennsylvania, so that this proposal of the University may be orally set forth. I am sure that if we make a beginning, we shall be able to arouse public interest generally in what so nearly concerns our population.

I take pleasure in saying that while the Laboratory has lost the services of Mr. Horton, Assistant in Bacteriology, the loss has been compensated by a public gain, for Mr. Horton resigned his position in order to accept the place of Chemist and Bacteriologist to the State Board of Health of Ohio.

The Director of the Laboratory again calls attention to its greatest need, namely: that of a large lecture room. To this need, and to the matter of the University's teaching in Bacteriology, I have already referred in my comments upon the work of the Department of Medicine.

## THE DEPARTMENT OF DENTISTRY.

The prosperity of the Dental Department, of which note was taken in my report of last year, has continued. Not only has the Department had the largest number of students upon record; but the number of those who matriculated at the beginning of the Academic year far exceeded the number of any previous record.

The second year in the history of the new Dental Laboratory has been concluded. Those who are familiar with the opportunities for Dental education in other cities, and at other Universities, inform me that the facilities offered by the University of Pennsylvania are quite in advance of those provided at any other Institution. Your Board has undertaken the teaching of Dentistry as an integral branch of Medical Science. That the care of the mouth and teeth and adjacent parts will soon be generally regarded as a proper field for study and research at universities cannot be doubted, and with this recognition the character and position of the men following this profession will receive adequate public recognition. It is not long since Surgery, and even some branches of Medicine, were not considered professional subjects calling for marked public respect. As civilization progresses, the position of the Dental profession and of the Veterinary profession will rise in public esteem exactly as has been the case in Medicine and Surgery.

Already the results of your Board's wise and liberal action, in providing a great laboratory for the teaching and study of this science are bearing fruit.

The Dental Faculty have already adopted a scheme of gradually increasing entrance requirements, to go into effect at the beginning of the coming Academic year; and it is believed that this advance step may be taken without regard to financial result, and probably without any jeopardy to the net income of the School. A new spirit of professional and University spirit has already been aroused, not only amongst students now with us, but amongst the Alumni of this Department resident in many parts of the United States.

The administration of the Department is admirable and its teaching excellent; complete accord exists in the Faculty itself, and between the Faculty and the students.

The advanced work of the School, such, for instance, as the dissections of the Professor of Oral Surgery, are already being noted in the text-books; many illustrations of the University's work have been already adopted for standard reference.

The opportunities of the Laboratory, and those of student life, now so abundantly offered by the University, are likely, within a short time, to overcrowd our present room. As your Board will probably not seek to enlarge the Laboratory, the question of selection of students by further advance in entrance requirements, and of a more adequate fee than is at present charged, may become matters for your consideration. In the report of the Dean, you will note that the suggestion is already before the Dental Faculty of the establishment of a Post-Graduate Course.

## DEPARTMENT OF VETERINARY MEDICINE.

I must again urge upon your Board the importance of serious attention to our Veterinary School. From its very beginning this School was organized on a plane which would do credit to the University; its requirements for admission were high, its curriculum thorough, and its standard of graduation exacting. These conditions limited from the start the number of students applying for admission, and still more the number who succeeded in entering. It was hoped that as the community became educated up to the realization of the importance of Veterinary science, of the dignity insisted upon for its practitioners, and of the conscientiousness and thoroughness of the work done by the School, there would be a gradual increase in the number of students, and more and more of public liberality towards it. This hope has hardly been realized. The past year was the first for a series of years in which the number of students has shown a tendency to increase rather than to decrease. I am gratified to note in the Dean's report this fact, and the equally gratifying one that the measure of preliminary training in the students now in attendance is higher than has heretofore been the rule. In all respects the educational work has been maintained at a high standard, and in some points extended and strengthened. With the rapidly increasing interest of the General and State Governments in all that relates to Live Stock, and the increasing numbers of State Examining Boards requiring high veterinary qualifications, we may hope for an increase in the number of students; but we ought not, in the meanwhile, to wait for the slow increment which would come from more tuition fees, to give a suitable emolument to the teaching staff. Only the professional zeal and loyalty



of its members could have kept them at their work in these years in which the School has been firmly established. And we must remember that it has greatly outgrown, by the very influence of its own teaching, the original purpose of its founding. At first the care of the horse was the idea chiefly in mind, then the treatment of other sick animals. Now, with the realization of the immense economic importance of the domestic animals to the Commonwealth, in which it is estimated that six million dollars' worth die annually of preventable diseases, of the close relation of the health of the domestic animals to the public health, and of the great possibilities of enlarging the productive value from the stocks maintained, our Veterinary School stands prepared to deal with these questions, and to train men to deal with them, in the most scientific and practical manner. It becomes one of the University's largest opportunities and responsibilities to the public welfare, and it is our manifest duty to encourage and strengthen it. It should have such measure of endowment, and such a share in popular beneficence, as would enable it without embarrassment to proceed in its work of educating veterinarians, and of investigations in its proper field, and for such aid I earnestly plead.

The Hospital, indispensable as an adjunct to the teaching equipment, is besides this an actual and very important public charity. It is this, too, in a double sense. If it were only that here relief is given to a great deal of suffering in the dumb animals for which it cares, it would appeal to the sympathy of that large number of our citizens who have in various ways planned and provided for that relief. But there is another, and perhaps nearer, aspect of the charity, in that as it restores health and usefulness to



the animal, it is restoring the means of living to its owner. The statistics of its in-door and out-door relief are gratifying reading, and indicate a steady growth in its usefulness. The appropriation of part of its ground, and all of its facilities to the work of the State Live Stock Sanitary Board indicated the liberal policy of its management, and the use made by the State authorities of these facilities was a recognition of the fact that nowhere else in the State could such facilities be found.

### THE FLOWER OBSERVATORY.

Since my last report, the Flower Observatory has entered upon its second year of work. The Director of the Observatory bears testimony to the very high quality of the instruments provided for its equipment. In his judgment they are as nearly perfect as can be hoped for. The observations have been patient and persistent, and the results of the work in the determination of latitude and in the measurements of double stars will be ready for publication during this calendar year. Since the opening of the Observatory, about 3900 individual determinations of latitude have been made; there have been numerous measurements of double stars, and constant determinations of the position of comets and minor planets.

The whole work of this Observatory, in perfecting our knowledge of systems already known, is exalted and exalting. I am quite sure that no recent work of your Board will bring more satisfaction than the long-delayed erection of the Flower Observatory.

I am glad to be able to note that the public have been admitted, by card, upon every Thursday evening, and that large numbers have availed themselves of this permission.

## THE MUSEUM OF SCIENCE AND ART.

It is a great pleasure to refer your Board to the report of the Secretary of the Department of Archæology and Paleontology. The Museum Building, conceived in 1893, is now approaching completion, in so far as the westernmost section of the elaborate plan is concerned. It was with great satisfaction that your Board devoted almost the whole sum appropriated by the Legislature in 1895 towards the erection of this section of the building, and that appropriation of \$150,000 was so encouraging to the host of friends whose interest this Department enlists that more than a duplicate amount has been already secured to defray the building expenses.

The Secretary refers in fitting terms to the loss which the Department has suffered through the death of its President.

The work of the Department is most comprehensive and most interesting. It seeks to illustrate the history and development of man inhabiting, or who has inhabited, the various parts of this planet, by collecting and bringing together all objects illustrative of manners and customs and life conditions during any historic period. As we of the present are indebted to the past for what we have and are, and shall in turn have a claim upon the future for what we may be to it, it is needless to say that the work in itself is of the first importance. The large collections now awaiting their new home will be of the utmost interest, not only to the City and State, but will greatly help in making the University known and respected in every part of the world.

Without making any distinction, reference may well be had to the University's work at Nippur, where a new expedition, with adequate funds for two years' excava-

tions, is now at work, under the management of Dr. Haynes, whose experience and skill assure us of an equal success to that of the previous expeditions which so enriched our Museum, and so stimulated Assyrian studies.

### THE WISTAR INSTITUTE.

The far-sighted wisdom of General Isaac J. Wistar in planning the Institute which he founded is becoming apparent as its methods are developed. These were not hastily decided upon, but were matured only after a careful consideration of the field occupied by other institutions, and of the latest and best thought in regard to the functions of a Museum as an educator. For this, General Wistar has provided munificently, not only in the buildings and their equipment, which are ideal for their purpose, but by perpetual endowment. The collections are twofold: one, unseen by the visitor, is the great storehouse from which the exhibits are drawn, material for laboratory work furnished, and specimens for exchange kept in store; the other, such synoptic illustrations of systematic and surgical anatomy, embryology, morbid anatomy, and kindred subjects, that each exhibit, with its descriptive labels, presents with the system of a text-book, and the vividness of the actual things, the whole subject to an inquiring student. The ample laboratories make all possible provision for the special worker in any of the lines of research which the Institute admits. But in no sense and in no case are these facilities intended for elementary instruction. Indeed, no formal instruction is offered. It is the place for mature students who are rather seeking new truth, testing new hypotheses, exploring deeper or more minutely into Biological fields, to increase not merely their own, but the world's knowledge, that these halls are erected and main-

tained. The costliest apparatus and most skilled assistance are not grudged if the investigator is qualified to do the work. During the past year the extensive mechanical shops were removed to the new building, and an electric light plant introduced. Some new cases have been added to the educational exhibit on osteology. A large number of the mammals collected by Dr. Furness in Borneo have been properly mounted and placed on exhibition; and an effective system has been established by which zoölogical collections are received from all parts of the country. The work of the Institute is certainly of most important character, and I have no doubt that as it becomes known, it will draw to us an important element of advanced students and investigators.

### THE UNIVERSITY LIBRARY.

The past year has been one of great activity and interest at this "Heart of the University." The accessions to the main library, through well-directed purchases and gifts, have aggregated nearly sixteen thousand bound volumes, so that with the additions to the Law Library, the total of accessions has been more than twenty-one thousand volumes.

Your Board, I am sure, will be surprised to know that the various periodicals now received at the Library number eight hundred and thirty-five, of which nearly five hundred are subscribed for by the University.

Very much of this stimulation and life at the Library is due to the activity of the Library Committee, and to the continued and large gifts of an anonymous friend of the University, whose name I am not permitted to disclose. The Librarian, too, and his Assistants, have been hard at work, and it is indeed a busy and interesting scene that

may be observed at any hour of the day in the Library Building.

After an inspection of the Library arrangements of several other universities, radical changes have been made in the reading rooms. One of these has been fitted up with desks, and a reference library has been instituted. While very much smaller in extent, of course, this part of the Library has been modeled upon the plan of the reading room of the British Museum. That the Library will hereafter become a favorite place of quiet and earnest reading and study appears to be assured. An important work has been undertaken in a revision of the catalogue, upon a modified system. In place of what has been known as the "double subject and author catalogue," a single "dictionary" catalogue has been substituted. It is at once apparent how great a work this is. It began in the spring of this year; it will probably be quite two years before it shall have been completed.

The Librarian calls your attention to the needs of the Library. Large additions to a library in one direction make manifest its needs in other directions, and of course this will always be the case. At present our Library "gaps" are noticeable, particularly in the Medical and Classical Libraries, and in the absence of important books and sources for the study of Mediæval Philosophy.

For a complete history of this one year's work in our Library, I beg especially to call the attention of your Board to the full and important report of the University's Librarian.

#### BIBLIOGRAPHY.

I take pleasure in calling your attention to Appendix XX, in which the Bibliography of the University staff for the past year is recorded. It indicates, as usual, a very



large literary and scientific productivity in our earnest workers. In extent it ranges from book reviews or clinical notes, often representing much care and labor, to the complete book that contains the results of years of study. In the latter class I am gratified to note some that will undoubtedly add to the reputation of their authors and of the University. Altogether 122 authors are represented, in 420 titles; and when we consider that this is almost invariably the work of men who are actively engaged in some form of teaching, and the necessary preparation which this involves, it is evident that the intellectual activity and industry at the University is great and productive.

#### SCHOLARSHIPS AND FREE TUITION.

I referred in my last report to the excessive burdens borne by the University in the matter of the free tuition which it has been called upon to bestow. I also referred, and I have no reason to change the views therein expressed, to the departments where this free tuition should be the more liberally granted, and the conditions under which such grants should be made. Through the action which your Board has taken during the year, new regulations for the direction of scholarships and free tuition will go into effect at the beginning of the academic year 1898-1899. I have no doubt of the wisdom of this action in limiting the number of free scholarships. Hereafter there will be a certain definite number in the Graduate School and in the courses in Arts and Science. This number is perhaps indeed now too large. I hope that the time may come when the University will be in funds specially provided by the public for this purpose, whereby aid may be voted to students who may be most fit to profit by the scholastic



opportunities which the University offers, and who, either by themselves or through their friends, may certainly not be able to pay all or part of the tuition fees. It is not altogether right that your Board,—which sustains an Institution at such large cost, and whose yearly deficit is a serious one, a deficit which has annually to be made up by private contribution; which pursues a policy in consonance with all the other universities, of charging but a nominal sum as a tuition fee,—should vote scholarship or other aid before it shall have received the means upon which to draw. Among the grateful opportunities which wealth has of being of perpetual service should not be overlooked this one of the endowment of scholarships and fellowships. Under a wise direction such aid would be of perennial value to many an anxious University student. The interviews which I so frequently have, and the correspondence which is submitted to me, tell many a tale of opportunity looked for, and of hope deferred. I have had, it is true, for several years past large sums of money entrusted to me, the use of which I am sure has done the utmost good; but these sums have not nearly defrayed the cost of the free tuition granted. It would gratify me very much to have scholarships established, open upon a competitive basis, and to be held equally by the rich as by those of little or no estate.

#### LIFE AT THE UNIVERSITY.

The transformation which your Board has made during the past four years has brought about an entirely new life, hitherto unknown at the University. For the first time there is a community of student life which has not become selfish or personal, and which, I believe, runs no

risk of becoming either; indeed, that life is a robust one, and will more and more make itself felt. This identification of the student body with the University of Pennsylvania, of which they are more and more proud, is becoming contagious. It is observable in every throb of the great heart of the whole University. That it is due largely to the influence of Houston Hall, and to the establishment of the Dormitories, with their individual "home" system and self-government, is evident to us all. I referred to this sentiment as being contagious. It has already begun to spread to our Alumni, not only in this, but in other cities and States. One and all are more and more recognizing the distinction of being a "University of Pennsylvania" man. The several Alumni societies are very much interested. The General Alumni Society, through the "Alumni Register," and through its committee work, is peculiarly active; and the oldest of the Alumni societies—that of the College—continues its watchful care of the course of events in our undergraduate departments. This is the first year during my term of service that I am beginning to receive, frequently, and now, almost daily, from Alumni, letters, or personal visits, speaking of their interest, and proffering their loyal help and support. Class organizations are beginning to feel the general awakening, and are being aroused to press forward the further development of their Alma Mater. Your Board has recorded at length upon its Minutes the expression which the Class of '48 has forwarded to you. The Class of '73—the first class to be graduated at the present site of the University—is just completing the erection of Memorial Gates, of exquisite and costly design. The Class of '72—the last class to be graduated at Ninth and Chestnut streets—is now preparing to erect a like tribute of their interest and af-

fection. Other classes, and members of classes, visit the University Offices to learn how they may help. The women of the City and State do not spare the proffer of their ready service, and no one knows better than I what women's hands have done at Houston Hall, or what the "Advisory Committee" have accomplished at the University's Dining Hall.

Our work may go on from day to day, with seeming quiet; but the unceasing steadfastness of that work in such a city as our "University City" is coming to be, is no less than marvelous, when we know how all of it is unselfish.

I can hardly plead for a greater benefaction to the University than the means to continue the Dormitory System. We can now offer a "home" to less than four hundred students. I am quite sure that if we had the means to complete the Dormitory System upon its present plan, we would have immediately not less than one thousand students "at home" at the University. I beg that this City and State will entrust to your Board the funds to complete the Dormitory System as at present planned.

The administration of so complex an organization as that of the University is not without its trials. One is apt to hear much more quickly of what goes wrong than of what goes right. The trials and troubles of University life are much more apt to come before its Provost than its joys and successes; but, amidst it all, I can go through Houston Hall, and walk in the "Little Quad" of the Dormitories, either by day or night, and get refreshment from that which has already been done and be buoyed with hope and expectation for what may yet be done in these special directions for the University.

The drawing together of the student body as students not of departments, but of the University, is expressed by

the increasing number of student organizations. Students conduct successfully and creditably the daily "Pennsylvanian" and the monthly "Red and Blue." The Chess Club, the Garrick Club, the Harmonic Society, and many other associations, in addition to the continuing attention to athletic exercises, exhibit the varied and wholesome interests which enrich the student life outside of their strictly academic engagements. The Christian Association is a vigorous and manly body; at work not only within the University, but active in its new College Settlement work in South street.

Evidently the greater part of this abundant life was not only wanting, but impossible, until quite recently. And as the University students have thus been drawn together, so the University Faculties and graduate students have been led to organize almost unconsciously. Space would fail me to mention or describe the multiform directions of this scientific and literary interest. The Philosophical Club, the Language Union, the Mathematical Club, the Architectural Society, the History and Classical Clubs, the Social Faculty Club, are samples of the recent organizations which are actively supported, each in its special direction, by members of our numerous teaching bodies. The higher life of the University is more vigorous and healthy than has hitherto been recorded.

### BENEFACTIONS TO THE UNIVERSITY.

The receipts from all sources for University purposes during the year just passed have not been as large as during the preceding year; but the report of the Treasurer shows that they amount to the significant sum of \$408,944.73.

During the past year the question has been publicly discussed as to the best ways, in the highest sense of that word, in which wealth may find its choicest application. The purposes for which the University of Pennsylvania exists are known to many, but are not known to all. The University belongs to that class of institutions which no people has willingly allowed to perish. And what are its objects? They cannot be better set forth than by re-stating what has been said concerning them by a University President. His words are as follows:

“All the professions called learned or scientific are fed by these institutions; the whole school system depends upon them, and could not be maintained in efficiency without them; they foster piety, art, literature and poetry; they gather in and preserve the intellectual capital of the race, and are the storehouses of the acquired knowledge on which invention and progress depend; they enlarge the boundaries of knowledge; they maintain the standards of honor, public duty and public spirit, and diffuse the refinement, culture and spirituality without which added wealth would only be added grossness and corruption.”

So that we may conclude that the greatest good to the greatest number, for the greatest length of time, will be best insured by gifts to universities,—and not the least to the University of Pennsylvania.

I have spoken of your great desire for the increase of the Dormitory System. We still need a building for our Graduate School; for our School of Architecture; we need a Physical Laboratory; we need endowments for seminar work in many subjects—English Literature, the Classics, Mathematics, etc. We must erect immediately new and important Medical Laboratories; we need to extend and develop the work of the Veterinary Department, the sig-



nificance of which, so far, is not wholly recognized; and, as I said last year, we need a University Chapel.

The year under review has been memorable in many ways. It was made so in one respect by the oration which the President of the United States delivered before the University on the twenty-second of February. The President referred to the priceless value of the higher life which was germinated and nourished and grown in the soil of this University City.

In closing the review of the work of the year, I must refer to the numerous personal attentions which the University has received from our townspeople, both men and women; and to the continuing interest and pride which the authorities of the State of Pennsylvania and of the City of Philadelphia have taken, as they have always taken, in helping the University; so that to all in civil authority, not only in City, but in State, the University desires to tender its sense of grateful appreciation. The University is unsectarian, but it has always been sustained by Christian men and women, and I know that I echo the voice of every member of the governing body when I reverently seek to return devout thanks to the Providence which has watched over us, and without whose approving benediction our building would be in vain.

I have the honor to be

Very respectfully yours,

CHARLES C. HARRISON,

*Provost.*

## APPENDICES.



## APPENDIX I.

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### PERSONAL CHANGES.

#### BY DEATH.

HARRISON ALLEN, M. D., Emeritus Professor of Comparative Anatomy.  
GEORGE HENRY HORN, M. D., Sc. D., Professor of Entomology.  
THOMAS MCKEAN, A. M., Trustee.  
WILLIAM PEPPER, M. D., LL.D., Professor of the Theory and Practice  
of Medicine, and of Clinical Medicine; Ex-provost.

#### BY RESIGNATION OR EXPIRATION OF TERM.

GREGORY B. KEEN, A. M., as Librarian.  
THOMAS ROBINS, A. M., as Treasurer.  
Rev. GEORGE STUART FULLERTON, Ph. D., as Vice-Provost.  
C. EMORY MCMICHAEL, as Treasurer.  
FRANCIS NEWTON THORPE, Ph. D., Prof. of American Constitutional  
History.  
ELMER G. HORTON, M. D., Asst. in Bacteriology.  
EDGAR V. SEELER, Asst. Prof. of Design.  
C. STUART PATTERSON, A. M., Prof. of Constitutional Law.  
W. S. CARTER, M. D., Asst. Prof. of Comparative Physiology.  
HENRY W. CATTELL, M. D., Dem. of Morbid Anatomy.  
ELLWOOD R. KIRBY, M. D., Asst. Instr. in Clinical Surgery.  
HOMER SMITH, Ph. D., Instr. in English.  
CHARLES W. SCRIBNER, M. E., Instr. in Mechanical Engineering.  
HARRY TOULMIN, M. D., Instr. in Physical Diagnosis.  
DAVID H. BERGEY, M. D., First Asst. in Hygiene.  
FREDERICK MAYNARD MANN, M. S., Instr. in Design.  
GEORGE B. HYNSON, Instr. in Public Speaking.  
VICKERS OBERHOLTZER, Ph. D., Instr. in Technical Chemistry.  
ARTHUR E. WILLAUER, B. S., in Arch.; Asst. in Architecture.  
CHARLTON D. MILLER, B. E., Asst. in English.  
SAMUEL MURRAY, Instr. in Modeling.  
HARRY DEFOREST SMITH, A. M., Instr. in Greek.  
FREDERICK M. PAGE, Ph. D., Instr. in French.  
ROBERT HUEY, D. D. S., Lect. on Operative Dentistry.  
HERMANN A. CHRISTMANN, V. M. D., Asst. Demonstrator of Veterinary  
Anatomy.

## APPOINTMENTS.

## GENERAL.

Feb. 1, 1898.	JAMES MCCREA, Trustee, vice John Scott, deceased.
April 1, 1898.	C. EMORY McMICHAEL, Treasurer.
April 29, 1898.	GEORGE L. HARRISON, JR., Treasurer.
May 24, 1898.	MORRIS JASTROW, JR., Ph. D., Librarian.
June 7, 1898.	SAMUEL FREDERICK HOUSTON, Trustee, vice Thomas McKean, deceased.

## IN THE COLLEGE.

Oct. 5, 1897.	VICKERS OBERHOLTZER, Instr. in Technical Chemistry.
Oct. 5, 1897.	CLINTON R. STEWART, Instr. in Mech. Engineering.
Oct. 5, 1897.	EDWIN B. TWITMYER, Instr. in Psychology.
Oct. 5, 1897.	OLIVER P. CORNMAN, Lect. on Child Psychology.
Oct. 5, 1897.	A. FERREE WITMER, M. D., Asst. in Physiological Psychology.
Nov. 4, 1897.	CHARLTON D. MILLER, Instr. in English.
Nov. 4, 1897.	J. DUTTON STEELE, M. D., Students' Physician.
Nov. 4, 1897.	MASON W. ZIMMERMAN, M. D., Students' Ophthalmologist.
Dec. 7, 1897.	HARRY DEFOREST SMITH, Instr. in Greek.
Dec. 7, 1897.	MERRILL SMITH, Instr. in Mechanical Engineering.
Dec. 7, 1897.	ABRAM H. WINTERSTEEN, Lect. on Business Law and Practice.
April 5, 1898.	THOMAS H. MONTGOMERY, JR., Ph.D., Lect. on Zoölogy.

## IN THE LAW DEPARTMENT.

Oct. 26, 1897.	WILLIAM H. CARSON, LL. B., Lect. on Law.
Nov. 4, 1897.	REYNOLDS DRIVER BROWN, A. B., LL. B., Prof. of Law.
Nov. 4, 1897.	JOHN W. PATTON, A. B., LL. B., Prof. of Law.
May 24, 1898.	FRANCIS H. BOHLEN, LL. B., Lect. on Law.

## IN THE MEDICAL DEPARTMENT.

Oct. 5, 1897.	JOHN P. ARNOLD, M. D., Dem. of Physiology.
Oct. 5, 1897.	LEWIS H. ADLER, M. D., Prosector to the Professor of Anatomy.
Oct. 5, 1897.	L. ALONZO RYAN, M. D., Asst. Dem. of Chemistry.
Oct. 5, 1897.	J. REX HOBENSACK, M. D., Asst. Dem. of Anatomy.
Oct. 5, 1897.	A. FERREE WITMER, M. D., Asst. Dem. of Physiology.
Oct. 5, 1897.	EDWARD R. SCHREINER, M. D., Asst. Dem. of Physiology.
Oct. 5, 1897.	GEORGE P. BARTH, M. D., Instr. in Practical Pharmacy.
Dec. 20, 1897.	DAVID RIESMAN, M. D., Dem. of Morbid Anatomy.
Dec. 20, 1897.	FREDERICK A. PACKARD, M. D., Instr. in Clin. Med.



- Dec. 20, 1897. SAMUEL M. HAMILL, M. D., Instr. in Clin. Med.  
April 5, 1898. HORATIO C. WOOD, JR., M. D., Dem. of Pharmacodynamics.  
July 12, 1898. HENRY A. NEWBOLD, Ph. G., M. D., Asst. Instr. in Practical Pharmacy.  
July 12, 1898. GEORGE D. MORTON, M. D., Asst. Instr. in Clinical Surgery.

## IN THE DENTAL DEPARTMENT.

- Dec. 20, 1897. WILLIAM ZERFING, D. D. S., Asst. Dem. of Operative Dentistry.  
Dec. 20, 1897. AUGUST O. KOENIG, M. D., Asst. Dem. of Dental Histology.  
Jan. 4, 1898. GEORGE G. MILLIKEN, D. D. S., Asst. Prof. of Operative Technics.

## IN THE VETERINARY DEPARTMENT.

- Nov. 4, 1897. W. HORACE HOSKINS, V. M. D., Instr. in Veterinary Jurisprudence, Ethics, and Business Methods.  
Nov. 4, 1897. EDWARD T. REICHERT, M. D., Prof. of Physiology.

## IN THE LABORATORY OF HYGIENE.

- May 3, 1898. ADELAIDE W. PECKHAM, Ph. D., THOMAS A. SCOTT  
Fellow in Hygiene.  
July 12, 1898. GEORGE C. KÜSEL, M. D., Asst. in Bacteriology.

## IN THE DEPARTMENT OF PHILOSOPHY.

- Feb. 1, 1898. EDWARD A. SINGER, Ph. D., Instructor in Philosophy.

## APPENDIX II.

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### REPORT OF THE DEAN OF THE COLLEGE FACULTY.

*To the Provost of the University:*

Sir:—I have the honor to submit the following report as Dean of the College Faculty for the year 1897-98:

The College organization remains the same as heretofore, each subject or group of related subjects being represented by one professor, who is a member of the Academic Council, which is constituted of all the representatives.

#### ABSENCE AND DISCIPLINE.

Some changes have been made in regard to matters of absence and discipline. In the fall of 1897, after careful investigation of the facts concerning students' absences in our own College, and in other colleges, the Academic Council adopted the following rule to regulate such matters:

Each Department shall keep its own record of students' absences.

A student absent for any cause whatever from more than twenty per cent of the hours in any course in a given term shall be marked "N" in that subject and immediately reported to the Dean's office.

To be restored to his course, a student may, in exceptional cases, and for exceptional reasons, make application to the Executive Committee. As, however, absences are not regarded primarily as matters of discipline, but are regarded from the point of view of their influence upon scholarship, and as the Academic Council judges that attendance upon at least eighty per cent of the hours

in each course of instruction is necessary, favorable action on the part of the Executive Committee must not be expected.

Attendance of students upon Chapel exercises is obligatory; but the Dean has the authority to excuse students or classes from attendance.

A student reported absent from Chapel more than ten times in any one term will be brought before the Executive Committee.

All cases of discipline shall be reported in writing to the Dean's office.

The old system of requiring each student to fill out a blank form of excuse for any hour of absence and hand it in to the Dean's office, to be returned marked "excused" or "not excused," proved not only liable to abuse, but imposed upon the Vice-Dean, the Registrar and the clerical force a vast amount of work in recording absences, and in notifying and dealing with students whose unexcused absences exceeded the allowed number of ten each term. There was practically no limit to the number of "excused" absences which might be incurred, and while the attendance was on the whole good, yet the very evident faults of the system, and the amount of machinery required to run it, rendered a change desirable. The undergraduates hailed with delight a system which did away with the excuse blanks and threw upon the students the responsibility of looking after their own absences within reasonable limits. Our experience of one year under the new system has demonstrated its efficiency, as the attendance has been better than under the old system, and the whole matter of regulating students' absences has become practically automatic. It may be remarked here that in no case was it necessary to drop any student on account of absence conditions. All students that were dropped had incurred by actual failures at examinations enough conditions to bring them within the rule requiring that they pass in two-thirds or more of their work in order to be allowed to continue with their classes. In some such cases

absence conditions also had been incurred, which showed that the student's failure was due to actual neglect of his work. During the first term twenty-four students incurred twenty-seven absence conditions, and during the second term twenty-six students incurred thirty-seven absence conditions.

The rule governing students' absences provided that exceptional cases be referred to the Executive Committee. Only five such cases occurred—all being due to protracted illness. The Committee allowed these students to continue with their classes and to make up the work lost through illness. Six cases of excessive absence from Chapel were acted upon by the Committee, by which also two students were suspended from College for handing in as their own, work that had been copied.

#### CHAPEL EXERCISES.

At the beginning of the year a change was made in the Chapel services, which, for several years had been conducted by clergymen of different denominations appointed as chaplains. Experience showed that an address at the Chapel exercises was rendered impracticable by the necessary brevity of the time allowed, and accordingly, it was decided to have the Chapel services revert to the old form which had been observed for so many years prior to the appointment of chaplains. Chapel exercises, consisting of a hymn or hymns, reading of the Scripture and prayer, are now conducted by the Dean. The students of the College have been addressed in Chapel during the past year by Lord Kelvin, Professor Knight of the University of St. Andrews, Rev. Canon Gore of Westminster, and the Honorable Wayne MacVeagh.

#### MEMORIAL TO THE CLASS OF 1757.

An interesting occasion was the unveiling in the Chapel of a tablet in memory of the first graduating class.

in the College—the Class of 1757. The tablet bears this inscription: To the Memory of the Eldest Sons of Our Fair Mother MDCCLVII—Francis Hopkinson, John Morgan, Hugh Williamson, James Latta, Samuel Magaw, Jacob Duché, Jr.,—This Tablet is Dedicated by the Youngest MDCCCXCVIII. The address was made by Dr. Horace Howard Furness. Brief addresses were made also by the Provost and by Mr. J. P. Remington, President of the Class of 1898.

#### NEW PRIZES FOR PUBLIC SPEAKING AND SCHOLASTIC EXCELLENCE.

The interest in the annual Inter-University debate with Cornell, and the general interest in Public Speaking as shown by the organization of the Pennsylvania Union, was further increased by the Faculty Debating Prizes of seventy-five dollars and twenty-five dollars, respectively, established by William West Frazier, Jr., Esq. Although open for competition to the whole University, the interest manifested has been principally in the College and Law School. In this connection may be mentioned the prize established by George H. Frazier, Esq., consisting of a standard work in literature to be chosen by him, and of a value of one hundred dollars, to be awarded to the “student in the College of the University of Pennsylvania, who, being a member of the football team, baseball team, track team or of the crew, shall attain the highest standing in scholarship.” The successful student in 1897-98 was a member of the football team.

#### CARE OF PHYSICAL CONDITION OF STUDENTS.

The health and physical well-being of all the students has been most carefully looked after. The appointment of Dr. M. W. Zimmerman as Ophthalmologist to the Department of Physical Education, and the requiring by the Academic Council that every new student have his eyes examined, has been productive of good results.



When defects of vision are discovered, the student is informed of their existence and advised to consult his oculist.

The lectures on Hygiene formerly given to the Freshman Class were suspended, and action was taken by the Academic Council requiring the physical examination of every student by Dr. C. W. Miller, Director of Physical Education, to whose energy and interest in the students must be attributed the plan of setting apart a special ward in the Hospital for students in the University who might happen to be ill. This ward was set apart by the courtesy of the Managers of the Hospital, and the special furnishing of the ward was done by contributions from students in all departments of the University.

#### MEMBERS OF THE FACULTY AND STUDENTS IN MILITARY SERVICE.

The breaking out of the war between the United States and Spain called forth special legislation on the part of the Academic Council in the cases of students who were members of the militia, or who enlisted in the army or navy on the call for volunteers. It was decided that:

1. Seniors who are members of the militia, if ordered out for service, will be recommended for their degrees without examination, provided their records are satisfactory.

2. Members of other classes, who are members of the militia, if ordered out for service, will be allowed to postpone their term examinations and to continue with their classes. They will be exempted from examinations in those subjects in which their records are entirely satisfactory.

Nineteen students in the College answered to the call to arms; two of them being Seniors, whose degrees were conferred at Commencement *in absentia*. One of these, George Elliott, died during the summer of typhoid fever contracted in the service.

The Faculty was represented in the war by Professor Spangler, who went as Chief Engineer in the Navy; by Assistant Professor Witmer, who enlisted in the Philadelphia City Troop; by Dr. E. A. Singer, Jr., who enlisted in the Engineer Corps, and by Dr. Frederick Page, who was appointed an Assistant Adjutant-General.

#### STUDENT SELF-GOVERNMENT.

Student self-government has always been an ideal cherished by College officers, and we have had very practical results from the appointment by the Dean of the presidents of the four classes as a Committee to represent the students on all questions touching the student life. At the conclusion of the year, the Committee thus constituted suggested making this student representation more equitable by having a larger Committee elected by their classes, and consisting of four Seniors, three Juniors, two Sophomores and one Freshman. This recommendation has been adopted by all the classes, and the Committee occupies an important place in the College.

#### MEMBERS OF THE FACULTY ABSENT ON LEAVE.

The absence of Professor Patten on leave, and the protracted illness of Dr. Lewis and Dr. Young, necessitated some readjustments of work in the course in Finance and Economy. The course of lectures by Dr. F. W. Spiers on "The History of Labor Movements" was substituted for the course on "The History of Law and Legal Concepts," given by Dr. Lewis.

Dr. Bates, Instructor in Greek, was absent on leave pursuing investigations in connection with the American School of Classical Study at Athens. His work in the College was done by Mr. H. deF. Smith. Professor Hilprecht was absent during part of the year in connection with the University explorations in Babylonia. Mr. Quinn, Instructor in English, was absent on leave pursuing graduate study at the University of Munich.

## CHANGES IN COURSES.

A number of changes have been made in the various courses of instruction in the College. Two new groups to be open in 1898 have been established by the Academic Council in the Junior and Senior years of the course in Arts and Science, making fifteen groups of electives open to students in that course at the beginning of the Junior year. The new groups are: Geology (Mineralogy)-Chemistry, and Botany-Zoölogy. Changes were made in the History-Economics group by which the amount of time given to these two subjects respectively was equalized. The distribution of students in the various groups for the last three years is shown in Table I. The work of the Senior year in the course in Finance and Economy was modified so that a portion of the work was made elective, the student taking eight hours a week of prescribed courses, and electing at least eight hours more from a number of courses offered. The work in the course in Science and Technology was increased slightly by adding in Freshman year four hours per week in Chemistry, one hour in English, and one hour in French or German; in Sophomore year by adding one hour in English, and three hours in European History, or two hours in Descriptive Geometry and two hours in Freehand Lettering (first term) and two hours in Analytical Mechanics (second term).

## CHANGES IN ENTRANCE REQUIREMENTS.

The transition from the old scheme of entrance requirements to the new necessitated some changes in the subjects accepted as preliminaries in 1898. The details of these changes are given in the University catalogue for 1897-98. The requirements for admission to the two years' special course in Biology were modified by allowing the omission of either Latin C (Cicero) or Latin D (Virgil).

Great care has been exercised by the Committee on

the Admission of Special and Partial Students in determining the general educational fitness of candidates for such courses.

#### THE SPECIAL COURSES FOR TEACHERS.

The special courses for teachers, instituted in 1894, have continued to supply a need, as is shown by the large attendance upon the lectures and classes each Saturday. Courses in the following subjects were offered during the past year: English Literature, Composition and Language, Latin, Greek, French, German, Philosophy, Pedagogy, Psychology, American History, Ancient, Mediæval and Modern History, Political and Social Science, Mathematics, Physics, Chemistry, Astronomy, Botany, Zoölogy. Several separate courses were given in each subject and the whole work has been organized with a graded three-years' course. Last year there were 284 teachers from Philadelphia and surrounding counties, and also from New Jersey and Delaware pursuing studies with a view to increasing their efficiency in their school work. The College through this special work has thus been useful to a large number of persons who, for various reasons, would have been unable to avail themselves of the regular courses leading to a degree.

#### INCREASE IN MATERIAL EQUIPMENT.

The material equipment of the various departments in the College has been renewed and increased as incidental needs and growth required, so that each is fully equipped for giving instruction in all subjects that properly belong to it.

Work in English Literature has been facilitated by large accessions of books purchased with the proceeds of the Lippincott Fund.

The courses in History have been benefited by large and valuable additions to the library bearing on English and American History, and including chiefly collections

of Sources, Journals and Reprints of documents in foreign archives.

Several thousand volumes have been added to the Pedagogical Library.

The course in Architecture has had added to its equipment a considerable number of books of plates, photographs, drawings, lithographs and models.

The Department of Mechanical and Electrical Engineering has had added to its equipment during the year eighty-one electric storage cells, presented by Mr. W. W. Gibbs for use in the Electrical Laboratory, a belt-driven air compressor, an econometer, two steam-engine indicators and an apparatus for measuring large quantities of water.

Additions to the equipment of the Department of Civil Engineering include a theodolite reading to single seconds, a level of precision, an abrasion machine for testing paving brick, a lathe for the preparation of test pieces, an improved 2000-pound Fairbanks cement machine, a boiling test cement apparatus, the gift of Messrs. Booth, Garret and Blair, of Philadelphia; a damp closet for briquettes and a drying oven for use in connection with specific gravity and absorption tests.

An important addition has been made to the equipment of the Biological Department in the form of five new greenhouses. The study of dead specimens is fast becoming obsolete, and the necessity of providing accommodation for living ones is urgent. The greenhouses now erected in communication with the Biological Hall, and the varied collection of plants now grown in the University Botanic Garden fully meet the requirements of our undergraduate students. By terms of bequest of our late distinguished colleague, Professor Cope, the Biological Department has received his large and valuable osteological collection, a unique set of fresh-water molluscs, numerous specimens of minerals, and several thousand volumes bearing on botanical, zoölogical and paleontological subjects. One of Philadelphia's most illustrious sons and a



renowned professor of our University will thus be appropriately honored and remembered by succeeding generations of students.

Work was begun during the summer on a new building which, when completed, will be a Vivarium, or live-house, for use in the courses in Zoölogy. The study of living animals, fishes, insects, etc., is an essential to any thorough presentation of Zoölogy, and the University will soon have unexcelled, if not unequaled, facilities in this respect.

#### THE SCHOLASTIC CONDITION OF THE COLLEGE.

The scholastic condition of the students in the College during the year just closed is shown, as far as may be done, by some tables of statistics which speak for themselves and, therefore, call for no extended comment. The faithfulness and earnestness of purpose of both Faculty and students cannot be shown by any tables, nor can they be adequately set forth in words. One must live in the atmosphere of the College to realize the vast amount of hard work that is being done, and well done, by the men whose association in various mutual relationships constitutes the College of which each is an integral part.

#### THE NEED OF A NEW PHYSICAL LABORATORY.

The growth of the University is always making necessary additional equipment. The building of the John Harrison Laboratory of Chemistry provided ample and adequate equipment for the courses in that subject which had formerly been given in rooms in College Hall entirely unsuitable for the purpose.

The Department of Physics, however, with its large and valuable collection of apparatus, and with the great number of students pursuing courses in that subject, is still confined and hampered in its work by the lack of sufficient and suitable space. The necessary conditions of

freedom from vibration, uniform temperature and many other things, without which exact work in Physics cannot be done, are quite beyond the possibilities of College Hall to supply, even were the necessary space available. The laboratory work in Physics is now conducted in the basement, where the dampness of the walls, the inadequate light and the high and variable temperature (caused by the proximity of steam pipes which supply College Hall and other buildings) occasion great inconvenience.

The only solution of the difficulty will be a new Physical Laboratory, in which not only the undergraduate but also the graduate courses may be provided for.

#### THE GREAT NEED OF ENDOWMENT FOR THE COLLEGE.

Mention has been made in the preceding pages of the work done during the year 1897-98, the changes and the additions, and it is proper, perhaps, at the close of this report, to call attention to the great need, the supplying of which will lift from the shoulders of the Provost and the Trustees a burden that has become so heavy as to threaten the very life of the College. In no great institution of learning do the fees received from the students amount to more than a fraction of the total expenses, but in most cases what would otherwise be a deficit is met by the income of endowments more or less liberal. The College of the University of Pennsylvania has endowments far less in proportion than those of almost any other college of similar rank, and far less than would seem absolutely necessary to its existence. In spite of this fact, and in order to be of the greatest service to the greatest number, there has been granted in the College during the period 1894-1898 free tuition to the amount of nearly \$68,000 (Table X). Few persons know this fact, or realize that this is a direct contribution that the University has been making to the community, for the amount mentioned does not include the Philadelphia City Scholarships, the State Scholarships, or those privately endowed. The fact

that each year a large deficit has to be met by funds raised for the purpose emphasizes both the liberality which the University has shown toward the community and the crying need of proper endowment to be provided by equal liberality on the part of those who are benefited directly or indirectly by the great educational work that is being done.

JOSIAH H. PENNIMAN,  
Dean.

## COLLEGE STATISTICS FOR 1897-98.

TABLE I.  
SHOWING ELECTIONS OF GROUPS MADE BY JUNIORS AND  
SENIORS IN ARTS AND SCIENCE DURING  
LAST THREE YEARS.

	1895-1896.		1896-1897.		1897-1898.	
	Seniors.	Juniors.	Seniors.	Juniors.	Seniors.	Juniors.
Latin-Greek . . . . .	5	9	9	10	9	4
Latin-German . . . . .	2	—	—	2	2	—
Latin-French . . . . .	2	1	1	—	—	—
German-French . . . . .	—	—	—	1	2	3
German-English . . . . .	—	—	—	2	1	2
French-English . . . . .	3	1	1	—	—	—
History-English . . . . .	2	6	6	5	4	14
Philosophy-History . . . . .	4	4	4	6	6	3
History-Political Economy . . . . .	—	—	—	—	1	1
Physics-Mathematics . . . . .	—	1	1	—	—	—
Astronomy-Mathematics . . . . .	1	—	—	2	1	—
Chemistry-Physics . . . . .	—	—	—	1	4	4
Biology-Chemistry . . . . .	4	6	6	2	2	8
Total . . . . .	23	28	28	31	29	41

TABLE II.

(I) NUMBER OF STUDENTS CONDITIONED AND NUMBER OF CONDITIONS IMPOSED.

FIRST TERM.	Number of Students Con- ditioned.	Number of Con- ditions.	Conditions per Stud- ent Con- ditioned.
Post Seniors . . . . .	—	—	—
Seniors . . . . .	23	38	1.6
Juniors . . . . .	52	100	1.9
Sophomores . . . . .	47	114	2.4
Freshmen . . . . .	77	179	2.3
Total Regulars . . . . .	199	431	2.1
Special, third year . . . . .	—	—	—
Special, second year . . . . .	7	13	1.9
Special, first year . . . . .	8	18	2.2
Total Specials . . . . .	15	21	1.4
Partials . . . . .	18	42	2.3
Grand Totals . . . . .	232	494	2.1
SECOND TERM.			
Post Seniors . . . . .	—	—	—
Seniors . . . . .	4	8	2.
Juniors . . . . .	37	64	1.7
Sophomores . . . . .	39	84	2.1
Freshmen . . . . .	62	112	1.8
Total Regulars . . . . .	142	268	1.8
Special, third year . . . . .	—	—	—
Special, second year . . . . .	1	6	6.
Special, first year . . . . .	7	14	2.
Total Specials . . . . .	8	20	2.5
Partials . . . . .	9	27	3.
Grand Totals . . . . .	159	315	1.9

(2) NUMBER OF STUDENTS ADVANCED WITH CONDITIONS  
AND NUMBER OF CONDITIONS CARRIED.

FIRST TERM.	Number of Students Allowed to Continue with Con- ditions.	Number of Con- ditions Carried by these Students.	Number of Conditions per Student Conditioned.
Post Seniors . . . . .	1	1	1.
Seniors . . . . .	21	35	1.6
Juniors . . . . .	40	70	1.7
Sophomores . . . . .	33	64	1.9
Freshmen . . . . .	64	118	1.8
Total Regulars . . . . .	159	288	1.8
Special, third year . . . . .	—	—	—
Special, second year . . . . .	4	10	2.5
Special, first year . . . . .	2	5	2.5
Total Specials . . . . .	6	15	2.5
Partials . . . . .	8	11	1.3
Grand Totals . . . . .	173	314	1.8
SECOND TERM.			
Post Seniors . . . . .	—	—	—
Seniors . . . . .	22	36	1.6
Juniors . . . . .	44	66	1.5
Sophomores . . . . .	44	101	2.2
Freshmen . . . . .	65	120	1.8
Total Regulars . . . . .	175	323	1.8
Special, third year . . . . .	—	—	—
Special, second year . . . . .	5	13	2.6
Special, first year . . . . .	7	12	1.7
Total Specials . . . . .	12	25	2.
Partials . . . . .	12	21	1.7
Grand Totals . . . . .	199	369	1.8

TABLE III.

STATISTICS REGARDING COLLEGE STUDENTS BELONGING  
TO UNIVERSITY ATHLETIC TEAMS.

(Football, Baseball, Crew, Track, Gymnasium and Cricket.)

## NUMBER OF STUDENTS ON THESE TEAMS.

Regulars . . . . .	80
Specials . . . . .	10
Partials . . . . .	4
Total . . . . .	94



	Dropped.		Withdrawn.	
	1st Term.	2d Term.	1st Term.	2d Term.
Regulars . . . . .	I	4	—	2
Specials . . . . .	—	—	—	I
Partials . . . . .	—	—	—	I

FIRST TERM.	Number of Students Con- ditioned.	Number of Con- ditions.	Number of Conditions per Student Con- ditioned.
Regulars . . . . .	34	56	1.6
Specials . . . . .	3	4	1.3
Partials . . . . .	I	I	I.
Totals . . . . .	38	61	1.6
SECOND TERM.			
Regulars . . . . .	28	50	1.8
Specials . . . . .	2	2	I.
Partials . . . . .	I	I	I.
Totals . . . . .	31	53	1.7

TABLE IV.

STUDENTS BELONGING TO ORGANIZATIONS OTHER THAN  
ATHLETIC (MASK AND WIG, UNIVERSITY BAND, THE RED  
AND BLUE, AND PENNSYLVANIAN).

## NUMBER OF STUDENTS IN THESE ORGANIZATIONS.

Regulars . . . . .	60
Specials . . . . .	7
Partials . . . . .	2
Totals . . . . .	69

## WITHDRAWN AT END OF SECOND TERM.

Regulars . . . . .	2
Specials . . . . .	2
Totals . . . . .	4

## SUSPENDED, FIRST TERM.

Regulars . . . . .	I
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FIRST TERM.	Number of Students Con- ditioned.	Number of Con- ditions.	Number of Conditions per Stu- dent Con- ditioned.
Regulars . . . . .	11	15	1.3
Specials and Partiala . . . . .	3	3	1.
Totals . . . . .	14	18	1.2
SECOND TERM.			
Regulars . . . . .	19	29	1.5
Specials and Partiala . . . . .	1	1	1.
Totals . . . . .	20	30	1.5

TABLE V.  
STUDENTS WITHDRAWN OR DROPPED.

	With- drawn.	Dropped or Put Back.		Suspended.	Deceased.
		1st Term.	2d Term.		
Post-Seniors . . . . .	1	—	—	—	—
Seniors . . . . .	2	—	—	—	—
Juniors . . . . .	3	10	2	1	1
Sophomores . . . . .	12	3	4	—	—
Freshmen . . . . .	17	16	9	1	—
Total Regulars . . . . .	35	29	15	2	1
Special, third year . . . . .	1	—	—	—	—
Special, second year . . . . .	3	—	—	—	—
Special, first year . . . . .	5	1	3	—	—
Total Specials . . . . .	9	1	3	—	—
Partiala . . . . .	16	3	4	—	—
Grand Total . . . . .	60	33	22	2	1

TABLE VI.  
STUDENTS IN COLLEGE.

	First Term.	Second Term.
Regulars . . . . .	561	511
Specials . . . . .	98	97
Partiala . . . . .	62	53
Total . . . . .	721	661

TABLE VII.

## SHOWING ADMISSIONS TO COLLEGE IN 1897.

Average age of students entering Freshman class in '97, 18 years.

Average age of students entering Freshman class in '98, 18 years, 5 months.

Total number of applicants . . . . . 344

Applicants admitted\* on examination . . . . . 106

Applicants admitted on public High School diploma . . . . . 66

Applicants admitted on public Normal School diploma . . . . . 1

Applicants admitted on credits from other colleges . . . . . 12

Applicants admitted to advanced standing . . . . . 7

Applicants admitted to special and partial courses . . . . . 42

Former students readmitted . . . . . 17

Applicants rejected on examination . . . . . 251

Applicants taking preliminaries and receiving credits . . . . . 45

Applicants taking preliminaries and receiving no credits . . . . . 26

Applicants taking preliminaries and receiving no credits . . . . . 22

Total . . . . . 48

Total . . . . . 344

APPLICATIONS CONSIDERED BY THE COMMITTEE ON ADMISSION TO  
SPECIAL AND PARTIAL COURSES.

Applicants admitted . . . . . 42

Total applications approved . . . . . 54

Total applications rejected . . . . . 20

Total number of applicants . . . . . 74

APPLICATIONS CONSIDERED BY THE COMMITTEE ON ADMISSION TO  
ADVANCED STANDING.

Applicants who entered college . . . . . 9

Applicants who did not enter . . . . . 9

Total number of applications . . . . . 18

APPLICATIONS CONSIDERED BY THE COMMITTEE ON SCHOOLS AND  
ENTRANCE REQUIREMENTS.

Total number of cases acted upon . . . . . 90

Applicants admitted without examination on Diploma . . . . . 53

Applicants admitted on Diploma with supplementary examination . . . . . 11

Former student readmitted . . . . . 8

Applications rejected . . . . . 2

Cases considered where students did not enter college . . . . . 16

\* "Admitted" in these tables refers to students who matriculated. Some applicants were admitted who afterwards failed to matriculate.

CONDITIONS IMPOSED BY COMMITTEE] ON SCHOOLS AND ENTRANCE  
REQUIREMENTS ON CANDIDATES PRESENTING DIPLOMA OF A  
PUBLIC HIGH SCHOOL.

French A . . . . .	3	Latin B . . . . .	1
French B . . . . .	2	Latin C . . . . .	2
German A . . . . .	8	Latin D . . . . .	2
German B . . . . .	8	Latin E . . . . .	3
Mathematics E . . . . .	2	Latin F . . . . .	2
Mathematics F . . . . .	2	Greek B . . . . .	1
English A . . . . .	1	Greek D . . . . .	3
English B . . . . .	1	Greek F . . . . .	3
Latin A . . . . .	1	History C . . . . .	1

Total . . 46

TABLE VIII.

	Arts.	Wharton.	Science.	Mechanical Engineering.	Civil Engi- neering.	Chemistry.	Biology.	Architecture.	Chemical Engineering.	Grand Total.
<i>Full Faculty Scholarships.</i>										
Post-Seniors . . . . .	—	—	—	—	—	—	—	1	—	—
Seniors . . . . .	12	1	—	2	3	—	—	—	—	—
Juniors . . . . .	6	1	1	—	—	1	1	4	—	—
Sophomores . . . . .	6	1	3	10	1	4	2	2	—	—
Freshmen . . . . .	5	1	—	2	1	2	1	1	—	—
First Special . . . . .	—	—	—	—	—	—	—	1	—	—
Second Special . . . . .	—	1	—	—	—	1	1	1	—	—
<i>Partial Faculty Scholarships.</i>										
Seniors . . . . .	1	—	—	2	—	—	—	—	—	—
Juniors . . . . .	2	2	1	2	—	3	1	—	—	—
Sophomores . . . . .	1	—	1	—	—	1	1	—	—	—
Freshmen . . . . .	7	—	1	4	1	2	—	—	1	—
Partial . . . . .	3	1	—	—	2	—	3	1	—	—
<i>Muhr Scholarships.</i>										
Sophomores . . . . .	—	—	—	—	—	1	—	—	—	—
Freshmen . . . . .	—	—	1	—	—	—	—	—	—	—
<i>Penn Scholarships.</i>										
Seniors . . . . .	1	—	—	—	—	—	—	—	—	—
Juniors . . . . .	1	—	—	—	—	—	—	—	—	—
<i>Full City Scholarships.</i>										
Seniors . . . . .	2	1	2	3	—	1	—	—	—	—
Juniors . . . . .	2	1	2	4	—	2	1	1	—	—
Sophomores . . . . .	5	1	—	1	2	—	—	—	—	—
Freshmen . . . . .	4	1	—	2	1	—	1	—	1	—
<i>Partial City Scholarships.</i>										
Juniors . . . . .	—	—	1	—	—	—	—	—	—	—
Totals . . . . .	58	12	13	32	11	18	12	12	2	170

total students in the College in 1897-98 in full or partial scholarships, 170.

TOTAL AMOUNT OF FREE TUITION GIVEN BY COLLEGE (EXCLUDING  
CITY SCHOLARSHIPS, STATE SCHOLARSHIPS, AND SCHOLARSHIPS  
PRIVATELY ENDOWED.

1894-95 . . . . .	\$16,340.00
1895-96 . . . . .	13,815.00
1896-97 . . . . .	18,775.00
1897-98 . . . . .	18,748.60
Total . . . . .	<u>\$67,678.60</u>



## APPENDIX III.

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### REPORT OF THE DEAN OF THE DEPARTMENT OF PHILOSOPHY.

*To the Provost of the University:*

Sir:—I have the honor of presenting to you the following report upon the progress of our graduate work during the year ending August 31, 1898, its present condition and its imminent needs.

#### THE FACULTY AND ITS COMMITTEES.

The members of the Executive Committee for the year 1897-98 have been as follows:

George Stuart Fullerton, Vice-Provost,  
William Romaine Newbold, Dean,  
William A. Lamberton,  
Edgar F. Smith,  
Roland P. Falkner,  
John M. Macfarlane,  
Marion D. Learned.

Professor H. A. Rennert has represented this Department during the past year upon the University Athletic Committee, and Professor E. P. Cheyney upon the University Committee on Non-Athletic Organizations.

The Committee on Discipline has consisted of the Dean, Professors Crawley and Conklin. I am happy to say that it has had no duties to perform.

The following instructors in the College have been appointed lecturers in this Department:

Jay B. Moyer, Ph. D., in Chemistry.  
Merrick Whitcomb, Ph. D., in European History.  
H. DeForest Smith, A. M., in Greek.

The Senior Fellows on the George Leib Harrison Foundation and the University Fellow in Invertebrate Zoölogy have also been authorized to give a limited amount of graduate instruction in the title subjects of their respective fellowships.

Dr. Isaac J. Schwatt, Lecturer in Mathematics, by virtue of his appointment as Assistant Professor of Mathematics on the College Faculty, will become a member of the Faculty of this Department next year with the same title.

Professor Simon N. Patten and Dr. William N. Bates have been absent on leave throughout the year. Mr. H. DeF. Smith has given graduate courses in the stead of those offered by Dr. Bates. Dr. E. A. Singer, Jr., has been appointed Lecturer in Philosophy, and Dr. T. H. Montgomery Lecturer in Invertebrate Zoölogy for the coming year.

We have learned with regret of the resignation of Professor Francis Newton Thorpe, which takes effect at the close of the current year. The work in American Constitutional History, over which Professor Thorpe has presided, will be carried on next year by Dr. Herman V. Ames.

#### ADMISSION AND CANDIDACY.

Our practice in the past has been to admit to candidacy for the higher degrees those persons, and those persons only, who held baccalaureate degrees in Arts or Pure Science granted by institutions whose degrees we recognize.

This we have found to be both too broad and too narrow. The baccalaureate degree commonly bears evidence rather to four years' faithful work under prescribed conditions than to any high degree of actual attainment or of promise. Again, there exists no consensus as to the proper constitution of the course leading to the degrees A. B. and B. S.; some institutions granting a "liberal" degree for work mainly in applied science, while others

require even of candidates for technological degrees much work in Pure Science, and even in Language and Literature.

Our former practice has, therefore, in some cases tended both to exclude from advanced work in Pure Science men admirably fitted by their preliminary training for successful research, and to admit to graduate work men whose training was in many respects defective. On January 24, 1898, the Faculty decided to modify the rule, and its decision was approved by the Board of Trustees, February 1, 1898. Hereafter any person holding a baccalaureate degree in Arts, Letters, Pure or Applied Science, granted by an institution whose degrees are recognized by this University,—except degrees in Law, Music, Theology, Medicine, Dentistry, Veterinary Medicine and Pharmacy,—will be admitted as a student of the Department, provided he is found prepared to undertake the graduate work selected. Such admission will not, however, imply candidacy for a higher degree. Any student who desires to present himself for examination for a higher degree must apply to the Executive Committee for permission to become a candidate. The Committee will then decide each case upon its merits. It is believed that the end in view will be better attained by this method than by any merely formal rule.

#### COURSES.

The adjustment of the relations of the graduate and the undergraduate work, of which I spoke on pages 83 and 84 of my last report, has not yet been effected, the matter being still under consideration.

#### EQUIPMENT.

The Library and valuable collections of the late Professor E. D. Cope, which were bequeathed by him to the University, have been received during the past year.

The Department of German has acquired the Karl

Knortz collection of German-Americana, and has purchased books relating to Goethe from the Wagner Fund.

Dr. E. O. Kendall, Emeritus Professor of Mathematics and Astronomy, has presented to the Provost his valuable library of Mathematics and Astronomy.

The Department of American History has received a gift of \$1000 for the purchase of books. A large portion has been expended in the purchase of tracts relating to the slavery question.

All departments report substantial gains in equipment into which it is not necessary to enter in detail.

#### FELLOWSHIPS.

The University Fellowship in Invertebrate Zoölogy lapses with the expiration of the current year.

A new fellowship for women has been established by the Alumnæ and other women who had formerly been students of this University. It will be known as the Alumnæ Fellowship for Women, and has the guaranteed value of not less than \$500 per annum for three years. The conditions under which it is granted are analogous to those of the George Leib Harrison Fellowships for men, save that the holder upon reappointment may be allowed to work at any University here or abroad. It gives me pleasure to acknowledge the obligations of the Department to all the women, formerly students of this and other departments, who have taken upon themselves the support of this fellowship, and especially to those to whom the movement owes its inception and successful prosecution.

#### HONORARY FELLOWSHIPS.

From time to time persons of mature scholarship have desired to avail themselves of the opportunities of study and research afforded by this Department without taking regular instruction. For the encouragement of such students the Corporation instituted, November 4,

1897, the position of Honorary Fellow. The Honorary Fellow must already hold the degree of Ph. D., granted by some institution whose degrees this University recognizes as equivalent to its own; he will be chosen in recognition of his ability and promise, will be allowed to use all the facilities of the University without any charge whatever. He will, however, be expected to render the University some service, in instruction or other assistance, in preparing and publishing an actual contribution to existing knowledge, or in some other way to make some return for the privileges granted him. This latter provision has been made, not so much to insure profit to the University as to establish an organic relation between the Honorary Fellows and the Department, and to discourage persons from seeking such fellowships who merely desire to secure the honor of formal attachment to the University without intending to do any serious work.

#### UNIVERSITY SCHOLARSHIPS.

The practice of remitting the fees of needy students, to which I referred on pages 86 and 87 of my last report, has been abolished, and in its stead the Corporation has granted to the Department thirty scholarships, to be awarded by the Board of Trustees upon recommendation of the Executive Committee to those students whose ability seems to justify such aid. Ten of these scholarships have been in force during the current year, twenty will be open to competition in 1898-99, thirty in 1899-1900 and thereafter. The amount of aid extended by the University to needy students will not thus be diminished, but will be more systematically administered, and will be given with greater regard for the scholarship of the applicant.

#### FEES.

It has been found necessary to impose laboratory fees upon students working in the laboratories, and cer-



tain changes have been made in the method of computing the fees due by students, into which I need not now enter.

## STUDENTS.

### NUMBER OF STUDENTS.

The total number of students who registered during the year was 168. Of these, seven special students withdrew without doing any work and should be deducted, leaving 161. Six regular students were absent on leave throughout the year, one of these being a Fellow. Two regular and five special students withdrew at the close of the first term.

Since the number of students during the year 1897-1898 was 182, this represents a loss of 21.

The students may be classified as follows: the corresponding figures for last year being annexed in brackets:

	New Students.	Old Students.	Total.
Senior, University and Honorary Fellows	1 [ 1 ]	6 [ 3 ]	7 [ 4 ]
Regular Students . . . . .	.42 [28]	.59 [ 70 ]	101 [ 98 ]
Special Students . . . . .	.21 [48]	32 [ 32 ]	53 [ 80 ]
	64 [77]	97 [105]	161 [182]

Of the 98 regular students who were in the Department during 1896-97, 20 withdrew after taking their degrees; 16 withdrew for other reasons; of the 80 special students, 48 withdrew and 32 returned.

The number of regular students has then remained approximately constant, the apparent gain of three being offset by the fact that six are absent on leave. In the number of special students there is a large decrease. This is due mainly to two reasons. An impression had got abroad that any person after working a few years as a special student would be admitted as a candidate for a higher degree, even if he did not hold a baccalaureate degree. The correction of this misconception has caused many to leave. Moreover, the practice of remitting the fees of special students was discontinued, and many for that reason decided not to enter.

The Faculty had expected that the enforcement of the rules adopted last year, by which the standard for the higher degree is considerably raised, would reduce the number of regular students. It does not as yet seem to have done so, the number of new regular students showing an increase of fourteen over the figures for last year. This is partly due to the seven new fellowships, but even without them there remains an increase of seven.

The following tables will show the number of women in the Department as compared with the three preceding years:

	1894-95.	1895-96.	1896-97.	1897-98.
Fellows and Regular Students . .	10	13	13	18
Special Students . . . . .	24	17	14	18
Total . . . . .	34	30	27	36

The percentage of women in the Department is shown in the following table:

	1894-95.	1895-96.	1896-97.	1897-98.
Fellows and Regular Students . .	10	12	12	14
Special Students . . . . .	40	28	17½	30
Total . . . . .	21	18	15	22⅓

This large increase per cent is found almost entirely among the special students and has, I think, no especial significance.

The annexed table gives the institutions from which the students of this Department hold degrees:

University of Aberdeen . . . .	1	University of Chicago . . . .	1
Adelbert . . . . .	1	University of Colorado . . . .	1
Amherst . . . . .	1	Columbia . . . . .	1
Augustana . . . . .	1	Dickinson . . . . .	3
Barnard . . . . .	1	Earlham . . . . .	2
Beloit . . . . .	1	University of France . . . .	1
Boston University . . . . .	1	University of Georgia . . . .	1
Gymnasium of Breslau . . . .	1	Gymnasium of Güstrow . . . .	1
Brown . . . . .	1	Harvard . . . . .	4
Bryn Mawr . . . . .	1	Haverford . . . . .	4
Buchtel . . . . .	1	University of Indiana . . . .	1
Bucknell . . . . .	2	University of Iowa . . . . .	1
University of California . . . .	2	Johns Hopkins . . . . .	1

Lafayette . . . . .	1	St. Joseph's . . . . .	1
Lebanon Valley College . . . .	1	Swarthmore . . . . .	4
Lehigh . . . . .	1	Syracuse . . . . .	1
Leland Stanford . . . . .	1	University of Toronto . . . .	1
University of London . . . . .	1	Washington and Jefferson . .	1
Massachusetts Institute of Tech-		Wells . . . . .	1
nology . . . . .	1	Wellesley . . . . .	2
Muhlenberg . . . . .	1	Wesleyan . . . . .	1
Newnham College, Cambridge .	1	Western Reserve . . . . .	1
Oberlin . . . . .	3	University of Wisconsin . . .	1
Ohio Wesleyan . . . . .	1	Wittenberg . . . . .	1
University of Pennsylvania . .	33	Woman's College of Baltimore .	1
Princeton . . . . .	2	Ursinus . . . . .	1
Rutgers . . . . .	1	Yale . . . . .	3
Shepardson . . . . .	1		

### SENIOR FELLOWS.

The Senior Fellows on the Harrison Foundation have, in accordance with the terms of the Foundation, been engaged in original research, and to a limited extent in giving such instruction as would better fit them for their respective professions.

Dr. W. E. Weyl, Senior Fellow in Political Science, has given a course on the "Elements of Political Economy" in the Department of Law of the University. His original work has been mainly devoted to two subjects,— "Railway Passenger Traffic," and "The Conditions of Railway Employment."

The first was a study of the passenger policies of railways in Europe and America, including a discussion of fares, traffic, conditions of exploitation, etc. The main results have been summarized in an article entitled "Causes Affecting the Rates of Fares," which was published in the *Annals of the American Academy of Political and Social Science*, May, 1898. The full account of the investigation will be contained in a volume of about 100,000 words, which is nearly ready for publication. The results of the investigation into the conditions of railway employment will constitute a volume of between 60,000 and 65,000 words, and will be published by the United

States Department of Labor in its number for January, 1899.

Dr. William Fairley, Senior Fellow in History, devoted himself to the study of Greek and Roman History, and in connection with it gave instruction for one hour a week during the first term in the College. He prepared an edition of the "*Monumentum Ancyranum*," which has been published in the "Translations and Reprints of the Original Sources of European History," and has been very favorably received.

Dr. Edgar Arthur Singer, Jr., Senior Fellow in Philosophy, has given an undergraduate course of lectures to the Junior Class upon the "Conceptions of Science," two hours, and a graduate course of lectures upon the "Philosophy of Kant, Schelling and Hegel," two hours. He read a paper entitled "The Psychology of Sensation" before the American Psychological Association, at its meeting at Cambridge, Mass., December, 1897, an abstract being published in the proceedings of the Society, and has published an article entitled "Sensation and the Datum of Science" in the "Philosophical Review" for September, 1898.

Dr. W. L. Hardin, Senior Fellow in Chemistry, has completed during the past year an investigation into the methods used for the determination of the atomic mass of Tungsten, which has been published in the "Journal of the American Chemical Society" (20 pp.), and has completed and published a translation of *Traube* "Physio-Chemical Methods." He has also given a graduate course of lectures upon Physical Chemistry, one hour a week, and has rendered a certain amount of assistance in the laboratory work of graduate students.

#### DISTRIBUTION OF COURSES.

The tables subjoined will show the distribution of courses among the regular and special students; Senior Fellows, Honorary Fellows and the University Fellow in

Invertebrate Zoölogy being excluded from this enumeration.

There were seven candidates for the Master's degree, of whom two elected only two subjects and one elected four, making the total number of subjects twenty.

Of the regular students, eighteen are taking Chemistry as a major subject; Philosophy, which comes next, has only eight. The large increase in minors in Chemistry is due to the change in the rules by which a student is now allowed to elect his major and his minors from the same group. English Literature comes next, with seven majors, American History and Zoölogy six, Economics and Germanics five, Greek and Pedagogy four each.



## ELECTIONS OF REGULAR STUDENTS.

	FOR THE DOCTOR'S DEGREE.						FOR THE MASTER'S DEGREE.									
	1894-95		1895-96		1896-97		1897-98		1894-95		1895-96		1896-97		1897-98	
	Minor.	Major.	Minor.	Major.	Minor.	Major.	Minor.	Major.	Minor.	Major.	Minor.	Major.	Minor.	Major.	Minor.	Major.
Comparative Philology and Sanskrit																
Greek	2	3	3		4		4		1							
Latin	6	7	7		6		6		2							
Romanic	2	2	2		4		4		1							
Germanic	2	3	2		6		6		2							
English Philology	1	2	1		7		7		1							
English Literature	6	7	6		10		11		3							
Assyrian	6	7	10		11		11		5							
Hebrew	2	3	1		6		6		4							
Syriac	7	7	6						2							
Arabic	2		2		1		1									
Ethiopic	3	2														
American Languages																
Philosophy																
Experimental Psychology	31	29	26		15		16		14							
Ethics	7	8	10		8		6		7							
Pedagogy	9	8	9		5		1		3							
American History	12	15	7		6		7		8							
American Constitutional History	3	6	11		6		7		4							
European History	3	2	3		3				1							
Political Science	9	12	8		11		5		5							
Economics	7	9	7		4		4		6							
Statistics	27	24	14		9		3		4							
Mathematics		4	2		3		5		4							
Astronomy	4	2	2		8											
Physics		1	4													
Chemistry	6	6	3		6		1									
Geology	2	2	3		5		11		12							
Mineralogy	11	10	11		10											
Botany	8	7	7		7				1							
Zoology	3	2	1		4		3		1							
Italian and Spanish	7	4	3		4		4		3							
Old Norse			2													
Medieval History			1													
English History					1											
Organic Chemistry					7		2									
Inorganic Chemistry					4		5									
Analytical Chemistry					4											
Comparative Anatomy of the Vertebrates					3											
Electro Chemistry					1											
Sociology																
Minors not yet elected (not specified)			10		9											
	185	194	182		188		97		98		91		37		21	
													17			20

## ELECTIONS OF SPECIAL STUDENTS.

	1894-95.	1895-96.	1896-97.	1897-98.
Comparative Philology and Sanskrit,	1	—	—	—
Greek . . . . .	1	1	1	2
Latin . . . . .	1	3	2	4
Romanic . . . . .	1	1	2	2
Germanic . . . . .	—	3	2	2
English Philology . . . . .	2	—	2	—
English Literature . . . . .	8	9	8	6
Assyrian . . . . .	2	5	1	1
Hebrew . . . . .	4	7	6	2
Syriac . . . . .	—	—	—	—
Arabic . . . . .	2	3	1	—
Ethiopic . . . . .	—	—	—	—
American Languages . . . . .	1	—	—	—
Philosophy . . . . .	16	11	14	6
Experimental Psychology . . . . .	6	6	17	9
Ethics . . . . .	2	5	6	5
Pedagogy . . . . .	8	9	23	15
American History . . . . .	7	9	6	5
American Constitutional History . . . . .	5	5	6	2
European History . . . . .	7	7	6	—
Political Science . . . . .	—	1	3	1
Economics . . . . .	2	4	3	2
Statistics . . . . .	—	—	1	—
Mathematics . . . . .	5	3	4	1
Astronomy . . . . .	—	1	1	—
Physics . . . . .	—	1	3	2
Chemistry . . . . .	1	1	7	2
Geology . . . . .	1	3	3	1
Mineralogy . . . . .	1	1	2	—
Botany . . . . .	2	2	3	1
Zoölogy . . . . .	2	3	1	3
Biology . . . . .	—	—	2	—
Sociology . . . . .	—	—	1	—
	88	104	137	74

Among the special students there has been a heavy loss in Philosophy, Psychology and Pedagogy, each of which has lost eight. This is due to the fact that most of the students who entered without a baccalaureate degree, hoping to be admitted in time to candidacy for a higher degree, elected these subjects.

## DEGREES.

At the commencement held June 8, 1898, the degree of A. M. was granted to:

Eleanor Anne Fyffe-Andrews : Romanic, Germanic.

Joseph Vincent Crowne : Economics, English Literature, English Philology.

Mary Elizabeth Parker : Pedagogy, Psychology, Philosophy, English Literature.

The degree S. M. was granted to :

William Kleefeld, Jr.: Mathematics, Pedagogy.

The degree of Ph. D. was conferred upon the following students. In connection with each name will be found the title of the student's thesis, his major and two minor subjects and his address for the year 1898-99.

Raymond Macdonald Alden : English Literature, English Philology, Middle English Literature.

Thesis : *The Rise of Formal Satire in England under Classical Influence.*

Senior Fellow in English, University of Pennsylvania.

Elizabeth Allen Atkinson : Chemistry, American History, Geology.

Thesis : *Metal Separation by Means of Hydrobromic Acid Gas.*

Three Tuns, Montgomery County, Pa.

Edith Bramhall : European History, Political Science, Philosophy.

Thesis : *The Temporal Privileges of the Crusaders.*

Fellow in History, Bryn Mawr College.

Walter Jacob Branson : Politics, Economics, Philosophy.

Thesis : *The Primary Election System in Philadelphia.*

General Secretary, Twenty-fourth Ward Municipal League,  
2435 Clifford street, Philadelphia.

Jacob Franklin Byler : Philosophy, Economics, Pedagogy.

Thesis : *The Epistemology of Locke, Berkeley and Hume.*

Supervising Principal of Jesse George School, Philadelphia, Pa.

Henry Lewin Cannon : English History, Mediæval History, Economics.

Thesis : *A Study in the Rise of English Lollardry.*

Richmond, Ind.

Frederick Ehrenfeld : Mineralogy, Geology, Chemistry.

Thesis : *A Study of the Igneous Rocks of York Haven and Stony Brook, Pa., and Their Accompanying Formations.*

Instructor in Geology and Mineralogy, University of Pennsylvania.

Margaret Emma Nicholas Fraser : English Literature, English Philology, Romanic.

Thesis : *Thomas Lodge as a Dramatist.*

Professor of Romance Languages, Elmira College, Elmira, N. Y.

Oscar Gerson : Philosophy, Psychology, Ethics.

Thesis : *Mental Association.*

Principal of Locust Street Grammar School, Philadelphia, Pa.

William Mason Grosvenor, Jr. : Electro-Chemistry, Inorganic Chemistry, Organic Chemistry.

Thesis : *Electrolytic Reductions.*

Englewood, N. J.

Harold Heath : Zoölogy, Botany, Geology.

Thesis : *The Development of Ischnochiton.*

Assistant Professor of Zoölogy, Leland Stanford, Jr., University.

(Rev.) Theodore Heysham : Philosophy, History, Hebrew.

Thesis : *St. Augustine, His Life and Doctrine.*

Norristown, Pa.

Simon Koppé : Assyrian, Hebrew, Greek.

Thesis : *The Business Documents of Murasu Sons, Bankers and Brokers of Nippur.*

(Was lost by the sinking of the steamer "La Bourgogne," July 4, 1898.)

Victor Lenher : Chemistry, Mineralogy, Geology.

Thesis : *The Atomic Mass and Derivatives of Selenium.*

Assistant in Analytical Chemistry, Columbia University, N. Y.

Charles Hallan MacCarthy: American History, American Constitutional History, English Literature.

Thesis: *Reconstruction Under President Lincoln.*

Instructor in History, Roman Catholic High School, Philadelphia, Pa.

Joseph Merritt Matthews: Chemistry, English Literature, Physics.

Thesis: *Derivatives of the Tetrahalides of Zirconium, Thorium and Lead.*

Professor of Chemistry and Dyeing, Philadelphia Textile School.

Jesse Hamor Michener: Pedagogy, Philosophy, Economics.

Thesis: *Individualism in Education.*

Supervising Principal of the Hoffman Combined School, Philadelphia, Pa.

(Rev.) Pezavia O'Connell: Hebrew, Arabic, Ethics.

Thesis: *The Synonyms of the Clean and the Unclean in Hebrew.*

Pastor of Bainbridge Street M. E. Church, Philadelphia, Pa.

Edward Anson Partridge: Mathematics, Mathematics Chemistry.

Thesis: *On the Mathematical Theory of the Geometric Chuck.*

Professor of Physics, Central Manual Training School, Philadelphia.

William Rolla Patterson: Political Science, Economics, Statistics.

Thesis: *The Relation of State and Municipality to Pawnbroking in Europe and the United States.*

Instructor in Political Science, Iowa State University.

George William Sargent: Chemistry, Mineralogy, Geology.

Thesis: *The Quantitative Determination of Boric Acid in Tourmaline.*

Chemist to the Carpenters' Steel Company, Reading, Pa.



(Rev.) Sadajiro Sugiura: Philosophy, Ethics, Psychology.

Thesis: *Hindu Logic as Preserved in China and Japan.*

St. Paul's College, Tokyo, Japan.

George Edward Thomas: Chemistry, Inorganic Chemistry, English Literature.

Thesis: *The Atomic Mass of Tungsten and the Preparation of Sodium Pertungstate by the Electric Current.*

1513 Centennial Avenue, Philadelphia, Pa.

(Rev.) James Turley Van Burkalow, Jr.: Assyrian, Hebrew, Greek.

Thesis: *The Buildings of Nebuchadnezzar.*

Georgetown, Del.

#### NEEDS.

I regret to say that it has not been possible in the course of the past year to provide permanently for any of the needs to which I called your attention a year ago.

The return of Dr. Bates from Greece will make it possible for us to offer a limited amount of work in Classical Archæology for the coming year, and through the courtesy of the Dean of the Medical Department some of the instruction there offered in Human Physiology has been made available, as auxiliary work, to students taking majors in Zoölogy. We are still unable, however, to offer major work in Animal Physiology, Classical Archæology, Anthropology, Comparative Jurisprudence, History and Philosophy of Religion and other topics which should be within our scope. The Romanic Language Group especially needs strengthening. The demands of the undergraduate work upon the time of those who are in charge of it are so heavy that only one man, Professor Renkert, is able to offer any graduate work whatever. Another assistant should be given him in order to allow of our offering more graduate instruction in this important branch of work.

Our material needs are also about what they were last year. Additional laboratory facilities in Physics, Zoölogy and Psychology, and a building for the use of graduate students are the most important of them.

Respectfully submitted,

WILLIAM ROMAINE NEWBOLD,

Dean.

## APPENDIX IV.

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### REPORT OF THE DEAN OF THE DEPARTMENT OF LAW.

*To the Provost of the University.*

Sir:—I beg to submit the following report for the academic year ending August 31, 1898:

#### THE NUMBERS, ETC., IN THE DEPARTMENT.

The numbers in the Department were, as stated in the catalogue, 364, as compared with 358 the year before. The increase of \$3097.24 in the receipts of the Department from tuition fees shows that the net increase was somewhat more than the above figures would indicate. The increase in the entrance requirements going into effect last fall was planned so as to exclude about twenty per cent of those formerly admitted, and was expected to keep the total number in the Department about stationary. In the same way the changes in the entrance requirements, which go into effect this fall, are expected to prevent any increase in our numbers next year. The students were divided as follows:

Class of 1898 . . . . .	106
Class of 1899 . . . . .	122
Class of 1900 . . . . .	124
Special students . . . . .	4
Partial students . . . . .	8

The geographical distribution of these students, as compared with 1896-97, was as follows:

	1896-97.	1897-98.
From Philadelphia . . . . .	237 or 66%	224 or 61%
From outside of Philadelphia, but in Pennsylvania . . . . .	97 or 27%	98 or 27%
From outside Pennsylvania . . . .	24 or 7%	42 or 12%

The age of the students of the first-year class on October 1 as compared with the other two classes on entering was as follows:

Class of 1900 . . . . .	22.2
Class of 1899 . . . . .	20
Class of 1898 . . . . .	21.2

Dividing the students according to preparatory education we have:

College graduates . . . . .	107 or 31%
Non-college graduates . . . . .	257 or 69%

The percentage of College graduates neither increased nor decreased. The proportion of those who had a high school training, or had been to college one or more years, but had not completed their course, increased about five per cent of the total in the school, and a similar decrease took place in those who came directly from private schools.

## ENTRANCE EXAMINATIONS.

Prior to the fall of 1897 the entrance requirements were the same as those prescribed by the Board of Examiners of Philadelphia County. In accordance with the practice of the Board, certificates from colleges and high schools were accepted in lieu of the examinations, which covered the elementary branches of an English education, and a somewhat more extensive knowledge of English and American History. In the fall of 1897 these requirements were materially changed. The examinations as given were identical with that given by the College, except that certificates from schools were accepted. One hundred and forty-two (142) students applied for admission and 124

were finally admitted. Of these, 107 entered on college degrees or school certificates and 20 passed the entrance examinations.

This fall no certificates are accepted with the exception of certificates from certain public high schools. This is in accordance with the rule adopted by the College this year. These certificates from public high schools are accepted only when they show a high grade in examinations, and exempt the applicant only from those examinations which his diploma fully covers. The combination of entrance examinations which a student must take has been increased. In lieu of one of the languages a student, instead of being required to pass an examination in either Solid Geometry, Plane Trigonometry or Physics must now take all three. He must also pass an examination in Blackstone's Commentaries, either on entrance or at the expiration of the first year. No subject is more important than the future requirements in regard to entrance to the Department. The students in any class must be on nearly the same intellectual plane, or efficient instruction to all is impossible. At the same time, to ask all men to take a College course before entering the Law School would keep out many who by mental training are able to follow the work of the Department. Besides this, I am constantly brought in contact with those who cannot, in justice to themselves, be urged to take a full College course of four years. These are usually those who are too old to afford the time. Without making at this time any positive recommendations on the subject, there are, in my opinion, three things in this connection worthy of serious consideration, viz.:

1. To raise the age limit required for entrance into the Department so as to prevent a boy of seventeen or eighteen who is prepared for, and certainly ought to go to, College, from coming at once to the Professional School.

2. To require those who have not a college degree to take, in addition to our present requirements, examina-



tions in subjects which may be regarded as preparatory to Law.

3. To enable the student in the College to take his fourth year in the Department of Law.

#### RESULTS OF EXAMINATIONS IN COURSE.

The results of the examinations show, as last year, the superiority of the student with a college training behind him. The total number of examinations taken was 2366. The total number of conditions was 271 or eleven per cent. Of these 47 were received by college graduates and 224 by non-college graduates. This makes about one-third more conditions per man among the non-college men than among the college graduates. In respect to honors, the total number of honors awarded was 600, of which 273 were given to college graduates and 327 to non-college graduates. In other words, the college graduates, being thirty-one per cent of the students, obtained forty-five and one-half per cent of the honors.

#### SCHOLARSHIPS.

There were two City and seven Faculty scholarships in the Department, and four scholarships by special award made prior to my incumbency, and when scholarships of this kind could be granted by the Dean under the then rules. Besides this, there were reduced tuition fees under similar arrangement no longer possible, amounting in all to \$428.76, thus making the assistance given by the Department \$2378.75 as compared with \$3528.60 during 1896-97. With the going out of the Class of '98, all except three of our special arrangements terminated. In another year we will be, in respect to all assistance to students, on the proper basis—that is, granting no remission of fees, but anxious to establish permanent or transitory scholarships when provided with the necessary funds by those interested in the Department and its students.

## THE CHANGES IN THE CORPS OF INSTRUCTORS.

The retirement of Professor Parsons in the summer of 1897, and the absence of Professor Graham, together with the great increase of instruction offered last year, rendered some addition to the corps of instructors necessary. Mr. John W. Patton, a lawyer of many years' active practice at the bar, was elected full professor. Professor Patton has devoted all his time to the new work in practice. Mr. Reynolds D. Brown, who had been Fellow of the Department for three years, was raised to a full professorship, and given in addition to his old work the new course on "Insolvency." Mr. William E. Mikell was appointed an instructor in the Department and directed to take charge of the "quizzes" offered to the students of the first year. Mr. Joseph Gilfillan, the second-year Fellow, filled the place of Professor Graham, conducting the course on "Partnership," while the other course given by Professor Parsons, that on "Decedents' Estates," was taken by Mr. John A. McCarthy, the course being designated "Property—Third Year." Mr. William H. Carson, Assistant District Attorney of Camden, N. J., gave the new course on "Carriers," while the recently-elected Fellow, Mr. Arthur G. Dickson, conducted the new course on "Admiralty." For the coming year there will not be any additions to the Faculty. We, however, lose Professor C. S. Patterson, who has been obliged to retire from his professorial work on account of the pressure of his other duties. Professor Patterson has been so long and prominently connected with the Department that we cannot fail to feel his retirement. The Faculty believe, however, that his interest in the School is just as strong as it ever was, and feel gratified that his son, Professor George S. Patterson, has been able to add to his other work the course on "Constitutional Law," with which Professor C. Stuart Patterson was so long identified. Two Fellows have been elected from the Graduating Class, viz.: Mr. Owen Josephus Roberts and Mr. Roy Wilson White; the

latter will give his whole time to the work of the Department.

#### COURSE OF INSTRUCTION.

The course of instruction during the year has been much enlarged. The following additions were made to the first-year course: There was given for the first time a course on "Equity" (Elementary and as applied to Torts). The course on "Crimes" was increased from one hour throughout the year to two hours for the first term and one hour the second term. A similar increase took place in the course on "Contracts," making an average of two and one-half hours throughout the year in that subject, while the course on "Torts" was given two hours instead of one hour per week throughout the year. In the second year, the number of electives was increased by courses on "Trusts," "Carriers" and "Agency;" and in the third year, by courses on "Insolvency," "Admiralty" and "Practice," while the time devoted to "Insurance," and to "Suretyship and Mortgage," was increased. The total regular instruction per week for the year was forty-one hours, an increase of ten hours. Besides this, fifty hours of auxiliary instruction in "Practice," "Elocution" and "Quizzing" were added to the work of the Department.

The changes proposed for next year include an increase in the amount of time devoted to the first year "Equity." The course will be given two hours per week throughout the year. The course in "Contracts" will be given four hours per week throughout the year, the course on "Pleading" three hours per week for one term, the course on "Crimes" two hours per week throughout the year. The electives of the second year, except that there will be an increase of the time devoted to "Partnership," will be the same as last year. In the third year, courses in "Equity" (as applied to Contracts), "Municipal Corporations," "Conflict of Laws" and "Negligence" will be added. These changes will make the total number of

hours of regular instruction offered per week forty-seven and one-half, or an increase of six hours per week over last year. It may be interesting to note that, as recently as 1893-94, only seventeen and one-half hours per week were offered to all the classes, while the scholastic year was shorter than the present.

The necessary and great increase here recorded has been made possible, not only by an increase in our force, but by the willingness on the part of the members of the Faculty to largely increase the amount of the instruction given by them.

The changes indicated in the course of instruction place our Department in regard to range and quantity of instruction offered on a par with similar departments of other large universities. It is believed that the next few years will witness a much more moderate rate of increase, and that now the chief work of the Faculty in relation to the course of instruction is to make a careful comparison of the courses given, in order, on the one hand, to eliminate duplication, and on the other hand, to insure that no important class of legal questions is omitted.

The plan adopted for putting the elementary courses into the first year, making all obligatory, while only requiring the student to elect ten hours per week each year from the courses of the last two years, the election being subject to the approval of a Committee of the Faculty, has worked well. The supervision of the Faculty, while it has left the student a wide combination of courses to choose from, has prevented any one from omitting more than a certain proportion of what might be called the principal courses, or confining his elections to one kind of courses, as contracts courses, thereby narrowing the range of his legal knowledge.

#### THE COURSE IN PRACTICE.

Last year was the first in which systematic instruction was offered in "Practice." Heretofore the law student

was supposed to obtain information in regard to the bringing of suits and the drawing of papers in a lawyer's office. But as only a very small percentage of our students are in lawyers' offices, it was recognized that the Department must undertake this training also. Last October, therefore, Mr. John W. Patton, a lawyer of long experience, was elected a professor in the Department, and given entire charge of this work. The course last year was naturally in the nature of an experiment. The class was divided into four sections, of about fifteen students each, the idea being to give, as nearly as possible, individual instruction. The students, besides receiving instruction in the Theory of Practice, were required to bring suits and draw legal papers. During the coming year certain changes suggested by the experience of last year are to be made. Instead of dividing the class into sections, instruction on the Theory of Practice and the Discussion of Cases is to be given to the class as a whole. A clerk of court's office, or prothonotary's office, is to be established where the students will obtain the facts of hypothetical cases. On these facts they will be expected to take out from the prothonotary's office all necessary writs, draw and file papers, etc. On bringing the case to issue, the pleadings will be examined and criticised by Professor Patton. It is believed that by requiring each student to conduct a certain number of cases in tort, contract and under statutory proceedings, he will obtain, besides systematic instruction in the Theory of Practice, as thorough a mechanical drill as was at one time received in the best lawyers' offices. The course is confined to Pennsylvania Practice, and is designed primarily for those who expect to practice in this State.

#### THE QUIZZING OF STUDENTS.

Last year was the first year in which the systematic quizzing of students on their work was undertaken by the Department. It had been found that the students in the



Department spent several thousand dollars each year in paying what were known as "quiz masters" to help them in their course. It seemed to the Faculty that if there was a real need for this help it could be given by the University itself. The experiment was tried with the incoming of last year's Freshman Class. The class was divided into sections of fifteen, and each section given two and one-half hours' review each week. These reviews or quizzes were conducted in the most part by our instructor, Mr. William E. Mikell, who was assisted by the Fellows of the Department. Taken as a whole, the plan was successful. The class was almost unanimous in desiring its continuance. Several radical modifications were requested and will be adopted for the coming year. In the first place, attendance at the quizzes will be voluntary. Again, instead of dividing the class into sections of fifteen each, the students desiring the assistance of the quiz master will form themselves into such groups as they desire. Each group will arrange with the instructor the quantity of quizzing and subjects on which help is desired. Mr. Mikell will remain the principal instructor of the first-year class. Mr. Roy Wilson White and Mr. Owen Josephus Roberts have been appointed instructors of the second-year class. Every student of these classes will have the advantage of review and quizzing to the extent which he desires, with an opportunity to choose his own associates in his quiz section.

#### THE GEORGE AND ALGERNON SYDNEY BIDDLE LIBRARY.

The increase in the number of books during the year has been great. On September 1, 1897, our accession number was 14,096; it is now 19,239, or an increase of 5142 as compared with 3705 during the previous year. This increase places our library among the first twelve law libraries in the United States, though, of course, it is still far behind such collections of legal works as those

possessed by the New York Bar Association. The figures given from the catalogue do not represent the full increase, as 2026 books, presented by Mrs. Arthur Biddle, are waiting to be bound before catalogued and put upon the shelves. Of the catalogued increase, 1881 were gifts, 3464 were purchased by the University. The number of gifts of books received has been very gratifying, not only because of the value of the gifts themselves, but also because it indicates a real interest on the part of the profession in the work of the Department.

The most notable gift is that of Mrs. Arthur Biddle. Mrs. Biddle presented to the Library the works belonging at one time to the late Mr. George W. Biddle, and subsequently to his son, the late Mr. Arthur Biddle. The collection consists of over 3500 volumes, including numerous text-books and colonial records. It also contained an almost complete set of English Reports, besides the Reports of the United States and several of the most important States. Of the purchases made by the Library Committee, 1336 were reports, 932 were text-books, the remainder being statutes, digests, periodicals, etc. A year ago the Library reached the point where we possessed all reports or text-books which a student would be apt to need. The Library Committee, therefore, during the year have carried out the policy of purchasing every work published properly belonging in a law library, and using the surplus to buy some books published in the past which are still lacking. This policy has enabled us to ascertain the annual cost of keeping up a complete law library. This cost is about \$4300, leaving about \$1600 to be spent on deficiencies.

During the last six months the Library Committee, with the assistance of the Librarian, has been endeavoring to ascertain the extent of the deficiency along the several lines of legal works. A partial list covering the more important deficiencies has already been submitted to the Faculty and the complete report will be ready in the fall. Unquestionably the chief work before the Department,

after the erection of our new building, is the work of placing our collection of legal works on an equal plane with that of the best law libraries in the country. Indeed, the new building and the creation of such a library are in reality but part of one idea. The whole character of the building, and almost every detail of its interior arrangement, has been planned on the theory that it would become a recognized home for the study of the common law; a place not only for the undergraduate student, but for any one engaged in legal research. Already our Library is used by lawyers and others engaged in special work. The whole duty of the University to those who seek knowledge of the law will not be done until not only our reading rooms offer every comfort to the worker, but our collection of legal works is substantially complete.

#### THE USE OF THE LIBRARY.

The use of the Library by students and others has increased to such an extent during the year as to make the overcrowding of our present inadequate quarters more noticeable than ever before. The plan of allowing the students access to the reports, while giving out text-books from the desk, has been continued, the use of the former being far greater than the latter. The average number of text-books given out per day during term time has been 175. During vacation 25. The average number of students using the Library during the term has been 250 per day, and during vacation 30. As each student uses an average of at least five reports, there have been used by undergraduates during term time an average of at least 1425 books per day. The attendance during the evening is about one-third of what it is during the day. The majority of those coming at night stay until eleven o'clock. A good deal of complaint has been made by students and others that the reports needed are not always easily found. A professor will refer to several reports

which a student will take from the shelves at one time, thereby, unless there are duplicates of the reports, preventing others from obtaining any of the cases until the first student has read them all. Again, with the increase in the use of the Library, the room often containing one hundred men, the confusion incident to each student hunting his own books has grown to be a considerable nuisance. We have, therefore, determined to give out at the desk next winter the reports as well as the text-books. Though I regret the fact that the student will thereby lose the opportunity of direct access to the reports, I cannot but believe that the change will be an advantage.

The use of our Library is by no means confined to the undergraduates,—being a free reading room,—open not only to the members of the bar, but the general public. Besides a number of visitors during the summer as well as the winter, I have had a number of applications for permission to do special work. This involves giving the applicant a table where he can work undisturbed, and which table will not be disarranged during his absence. The number of this class at present in the Library is ten. During the summer changes have been made which will enable us to accommodate this number, besides giving a separate table to each professor, instructor or Fellow who desires to work in the Library.

The First Assistant Librarian, Mrs. M. C. Klingel-smith, has devoted a part of her time each day in assisting the students, especially those of the first-year class, to the knowledge of reports and methods of citation, the best text-books on different subjects, where information on particular subjects can be found, etc. I believe this work is essential to enable the student to obtain the full benefit of his course in the Department, and during the coming year it is expected to arrange the work of the various assistants in the Library so as to enable Mrs. Klingel-smith to devote a large part of her time to students desiring information of the character indicated.

The work of the Assistant Librarian deserves special

mention, as besides the duties above mentioned, and a considerable share in the mechanical work of distribution, she has catalogued over 19,000 volumes, carried on the correspondence concerning the purchase of books, and collected much valuable information for the use of the Library Committee of the Faculty.

#### CASE-BOOKS CONTAINING CASES REFERRED TO BY PROFESSORS.

In my last annual report I dwelt upon the difficulty experienced by the students when a class of over one hundred were referred to the same case, only one, or at most two or three copies of which were in the Library. Not only was it impossible for each member to obtain the report before the next hour with the professor, but the wear and tear on the reports, many of which were of great value, was considerable. It was at first thought advisable to reprint and bind in one or more volumes the cases referred to by professors and rent the volumes to the students. When, however, this plan came to be put into practical operation, it was found, owing to recent changes in the courses, that the professors were, as a rule, unable to furnish the Department with a list of the cases in the then courses which might not be subject the next year to various modifications. It was, therefore, thought best to ask each professor to indicate the case-book already in existence containing the greatest number of cases referred to by him in his course. This was done and a considerable number of such collections purchased. The result has been more satisfactory than was hoped. While there are still a number of cases referred to by professors, of which the Library possesses none, if any, duplicates, in the great majority of instances the student can feel certain that when a case is referred to he will find a sufficient number of reports in the Library to satisfy the needs of the class. It is needless to say that even the partial solu-



tion of what promised to be a very serious problem gives great satisfaction.

### THE NEW BUILDING.

The most important work of the past year has been that connected with the new building for the Department. As you are aware, the necessity for erecting, on the grounds of the University, a suitable home for the Law Department has been recognized for a number of years. The project, however, did not take definite shape until the winter of 1897. It was then seen that, in order to accomplish all desired by the Faculty, the cost of the proposed structure and its equipment would not be under \$300,000. The task of raising this large sum fell almost exclusively on you. The labor expended and the large measure of success attending your efforts do not form a proper subject for this report. The task undertaken by the Faculty has been the perfection of the plans. This has involved much labor and thought. In regard to the minor details of interior furnishing, this work is not yet entirely through, and will not be until the building is completed. The exterior, as suggested by architects, was approved by the Board of Trustees last spring. In respect to the interior arrangement, the plans are now definitely determined and the architects, Messrs. Cope and Stewardson, are about to ask for bids. It has been our endeavor to leave nothing lacking for the comfort of the student, not only as an attendant upon lectures, but during his entire working day. In the arrangement of the Library and reading rooms provision has been made for about six hundred undergraduates and at least one hundred advanced students or persons engaged in special legal research.

We believe that the building will be a convenient and dignified home for the study of the common law, ample for the needs of the University and of the City for many years.

## RECEIPTS AND EXPENSES.

The receipts and expenses of the past year have been as follows:

Receipts from tuition . . . . .	\$49,507 39
Paid into Library Fund:	
Unexpended surplus to credit, September 1, 1897 . . . . .	\$349 15
Loan from University out of surplus of Law Department . . . . .	6,000 00
Ten per cent of tuition received during 1897-98. . . . .	5,940 36
	<hr/> \$12,390 52
Educational salaries . . . . .	26,629 73
Administrative salaries . . . . .	1,854 88
Current expenses . . . . .	9,612 60
	<hr/> \$50,487 73

Prior to November, 1897, no separate account was kept of the funds belonging to the Library. On the opening of a separate account to the credit of the Library, all moneys due the Library had to be checked into the account and charged against the expenses of last year, though the loan of \$6000 was made during the previous year. The amount to the credit of the fund, September 1, 1897, is also a debit of the previous year. In relation to the receipts, if all the students under scholarships or reduction of fees had paid, the total receipts of the Department would have been \$54,840.00, the actual receipts being \$49,507.39, represents a loss of \$6052.61 as compared with a similar loss of \$7114.85 in 1896-97. The loss is due to these causes: First, the withdrawal of students who regularly matriculated, but did not take any part of the course or pay any fee other than the matriculation fee; second, the students who withdraw after the midwinter examinations and do not pay the second term fee; third, the bad debts. The first class does not represent any real loss and their names should be kept from the catalogue. The second class may be eliminated by abolishing midwinter examinations and making the fee payable in one payment instead of two. The single payment plan has, I understand, worked

well in the Medical Department. I expect to bring the question of abolishing midwinter examinations to the early attention of the Faculty. The last class can only be eliminated by requiring students to pay invariably in advance, or by requiring from each student a bond.

In relation to the administrative department, and, indeed, to all expenditures of the department, I desire to recommend a very radical departure from our present methods. At present the Dean of the Department has absolute discretion to spend what he chooses. In fact, he may run up bills to any amount, and the University would have to honor them. It is a system which shows great confidence in the Dean, but it is not businesslike. In the first place, I think there ought to be an intelligent discussion of expenditures between the central authorities and the Dean. This discussion, of course, should take place before, and not after, the expenditures. The Dean should submit to the Board, before the opening of the term, his estimates for the coming year, calling for what he considers the necessary appropriations. This should be approved or modified, and the Dean should then be expected to keep within the appropriation.

Respectfully submitted,

WILLIAM DRAPER LEWIS,

Dean.

## APPENDIX V.

### REPORT OF THE DEAN OF THE DEPARTMENT OF MEDICINE.

*To the Provost of the University:*

Sir:—I have the honor of submitting to you the following report of the Department of Medicine for the academic year 1897-98:

The total number of students in attendance upon instruction in the Department during the session of 1897-1898 numbered 883. As heretofore, the large majority of those in attendance came from the State of Pennsylvania, although almost every State in the Union was represented in the number, as well as a goodly number from foreign countries. The total is less by forty-three than the total number in attendance during the preceding session. The decrease may be attributed largely to two causes:

First. The increased requirements for admission.

Second. To the withdrawal of students who had failed to pass the examinations required at the end of the session.

It is possible that owing to the requirements for admission to the first-year class next session being greater than for admission this session, the first-year class entering for the session 1898-99 may be somewhat smaller than the first-year class session 1897-98, and that owing to the cause just assigned the first-year class entering in 1899, when the requirements for admission are identical with those required for admission to the Freshman Class of the College of the University, will be still smaller in size. However, I believe that the experience of other institutions in which the professions are taught shows that where an increase in the requirements for admission is made, tem-

porary decrease in the number of students entering the first-year class occurs, but that this decrease is only temporary in character, and that after a few years the entering class increases in size.

The number of students who were required to undergo examination for admission to the first-year class was 44. Of these, 33 successfully passed the examination for admission and 11 failed.

The students in attendance during the session numbered 883, arranged in classes as follows:

Members of the Fourth-year Class . . . . .	195
Members of the Third-year Class . . . . .	253
Members of the Second-year Class . . . . .	227
Members of the First-year Class . . . . .	206
Special students . . . . .	2
Total . . . . .	883

The students possessing academic degrees from institutions of standing entering the first-year class numbered 19 as against 43 last session in an entering class of 285. The percentage of college graduates in the first-year class, session 1896-97, was 15.8 per cent, and during the session 1897-98 the percentage was 9.2 per cent. This shows an unfortunate decrease in the number of students holding academic degrees. The following tabulation of the size of the first-year class, the number possessing academic degrees, and the percentage of the latter, shows that the first-year class contained the lowest percentage of college graduates of any entering class during the past six academic sessions.

Session.	First-year Class.	Degrees.	Per Cent.
1892-93 <sup>1</sup> . . . . .	311	78	25.3
1893-94 . . . . .	188	40	21.2
1894-95 . . . . .	242	24	9.9
1895-96 . . . . .	331	39	11.5
1896-97 . . . . .	285	43	15.8
1897-98 . . . . .	206	19	9.2

Twenty-one college graduates presented certificates covering the requirements in Science and Biological



studies for admission to the second-year class and were admitted to that class at the beginning of the session. The number of candidates possessing these qualifications admitted to the second-year class at the beginning of the present session was 19. If these new students were considered as members of the first-year class, the total number of college graduates in the class would be 40 and the percentage of college graduates would be 17.6 as against 21.9 per cent last session.

The status in point of preliminary education of the first-year class which entered the Department this session was as follows:

	Session 1897-98.	Session 1896-97.
Candidates who passed the entrance examinations . . . . .	33	88
College graduates . . . . .	19	43
Graduates of approved High Schools and Academies . . . . .	76	40
Graduates of approved Normal Schools . . . . .	6	22
Candidates who had been members of the Senior Class in a College of standing . . . . .	7	1
Candidates who had been members of the Junior Class in a College of standing . . . . .	17	4
Candidates who had been members of the Sophomore Class in a College of standing . . . . .	13	7
Candidates who had been members of the Freshman Class in a College of standing . . . . .	14	8
Dropped from the preceding first-year Class and repeat- ing the studies of that year . . . . .	21	72
	<hr/> 206	<hr/> 285

The above comparative statement shows that although there was a decrease in the number of college graduates who entered the Department of Medicine in the session 1897-98 compared with the number who entered the first-year class session 1896-97, there was a decided increase in the number of graduates of approved high schools and academies in 1897-98, as well as a decided increase in the number of individuals who had been members of a Freshman Class or upper classes of a college of standing. Then, too, in the session 1896-97, of the 285 members of the class, 72 members had been dropped from the

preceding first-year class and were repeating the studies of the year, whereas in the session 1897-98 of the 206 members of the class, only 21 members of the preceding first-year class were repeating the studies of the year. In this computation, however, no account has been taken of the members of the class who, because of failure to pass the examinations or from other causes entirely withdrew from the University. This condition may be attributed largely to the effect of the increased entrance requirements excluding candidates whose preliminary education was insufficient, and consequently only those who were best prepared to take up the studies of the Medical course were admitted and in consequence better prepared to grasp the subjects taught during the year.

The average age of the 206 members of the First-year Class was . . .	21.1
Average age of College graduates . . . . .	23
Average age of members of the Senior Class of a College of standing . . .	22
Average age of members of the Junior Class of a College of standing . . .	21
Average age of members of the Sophomore Class of a College of standing . . . . .	20.5
Average age of members of the Freshman Class of a College of standing . . . . .	20
Average age of graduates of High Schools, Academies, etc. . . . .	19.8
Average age of those entering by examination . . . . .	20

It may be observed by the above tabulation that the average age of the members of the class possessing academic degrees was twenty-three years. Considering that the course in Medicine is four years in length, and thus adding four years to the twenty-three years, the average age of the members of the class possessing such academic degrees will be twenty-seven years when they shall have obtained their degree in Medicine, it seems to be an undue deferring of the time when a young man shall begin his life work. Should the graduate, however, decide to spend a year (some hospitals require two years) as interne in a hospital, his age would be twenty-eight at the time of the beginning of his professional career.

The construction of apparatus for the Laboratory of

Physiology was continued, under the direction of the Professor of Physiology, during the year by the force of four expert mechanics in the machine shop of the Laboratory of Physiology.

Voluntary courses in Practical Physiology were offered at the beginning of the session to members of the first and second-year classes. One hundred and eighty-seven members of the first-year class and 153 members of the second-year class availed themselves of the opportunities offered. Next session the course in Practical Physiology will be obligatory upon the members of the first and second-year classes.

Even with the best artificial light, the parts dissected in the Dissecting Room could not be so clearly distinguished and defined as by sunlight, and, therefore, owing to this and the desire to rearrange the hours for laboratory work, the Faculty decided that at the beginning of the session the plan should be changed so that the first and second-year classes should be divided into sections, and that hereafter all of the dissecting, and indeed all of the work in the laboratories, should be performed during daylight hours. Thus members of an entire section of the class begin work simultaneously in the Dissecting Room and continue work as a section during specified daylight hours until the end of the period assigned that particular section, by which time the students will have dissected the material assigned them. The plan of confining all of the dissecting and laboratory work to daylight hours permits the students to devote every evening in the week to study at home. The new plan, both as to the dividing the class into sections for this work and performing the work during the daylight hours has been pursued during the session and has been found to be very satisfactory.

The course of lectures (one lecture per week during one-half the session) to the fourth-year class on the Preparation of Food for the Sick which was authorized by the Faculty was delivered during this session. Notwithstanding that the attendance upon the course was volun-

tary, the lectures were very well attended by the members of the class.

The electives chosen by the members of the fourth-year class are shown by the following table:

Nervous Diseases . . . . .	13
Skin Diseases . . . . .	17
Advanced Hygiene . . . . .	1
Laryngology and Rhinology . . . . .	40
Orthopædic Surgery . . . . .	29
Ophthalmology . . . . .	10
Otology . . . . .	5
Genito-Urinary Surgery . . . . .	73
Advanced Anatomy . . . . .	3
Advanced Physiology . . . . .	2
Advanced Pathology . . . . .	1
Advanced Medical Chemistry . . . . .	2
Pædiatrics . . . . .	110
Experimental Psychology . . . . .	3
Medical Jurisprudence . . . . .	3

The refrigerating plant to be used in connection with the Dissecting Room was completed in September, 1897, and was immediately put in service, and has been in satisfactory continuous service ever since.

The new laboratory building to accommodate the Laboratories of Physiology, Pathology and Pharmacodynamics, which the Faculty requested the Board of Trustees to provide means to erect and equip, is greatly needed to carry on the practical instruction in those subjects. Practical work in these subjects is at present being conducted in rooms in Medical Hall and the adjoining laboratory building, but the quarters assigned are rather inadequate for the work. It is hoped that within the very near future the greatly needed new building may be constructed so that the laboratories may occupy quarters especially adapted for their individual uses.

Respectfully submitted,

JOHN MARSHALL,

Dean.

## APPENDIX VI.

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### REPORT OF THE ASSISTANT DIRECTOR OF THE WILLIAM PEPPER LABORATORY OF CLINICAL MEDICINE.

*To the Provost of the University:*

Sir:—During the past year the work of the Laboratory has been continued along the same lines as previously, a number of associates occupying themselves with investigations of original character. The regular associates in the Laboratory have been Drs. Samuel S. Kneass, Alonzo E. Taylor, Joseph Sailer, William G. Spiller, David L. Edsall and Charles H. Frazier. Dr. J. Dutton Steele has found it impossible to continue with his work in the Laboratory on account of growing duties elsewhere. Dr. C. Y. White continued his work until December, 1897, when he went abroad for further preparation. He has recently returned, with Dr. Thomas S. Kirkbride, who has been studying in Europe for several years, and both of these gentlemen will work in the Laboratory regularly in the future.

A number of expensive and valuable pieces of apparatus have been acquired during the year, and considerable supplies of material were imported for the regular uses of the Institution.

The work in Roentgen Skiagraphy was discontinued, as the limited usefulness of this method in Clinical Medicine did not warrant the large expenditure incident to the experiments; and Dr. Charles L. Leonard has, therefore, discontinued his relations with the Laboratory. Dr. George Woodward has also severed his relations with the Laboratory on account of increasing duties elsewhere.

Among the contributions which have come from the Laboratory the following may be mentioned:



Dr. William G. Spiller:

A Case of Meningomyelitis, Resembling in Some Respects Landry's Paralysis, with Special Reference to Tuberculous Meningitis. *Journal of the American Medical Association*, April 9, 1898.

A Microscopical Study of the Spinal Cord in two cases of Pott's Disease. *Johns Hopkins Hospital Bulletin*, June, 1898.

A Case of Progressive Muscular Dystrophy, with Microscopical Examinations of the Sterno-Cleido-Mastoid Muscle. *Medical Record*, July 2, 1898.

Sections from the Sterno-Cleido-Mastoid Muscle in a Case of Congenital Torticollis. *Transactions of the Pathological Society of Philadelphia*, July 15, 1898.

On Amyloid, Colloid, Hyaloid and Granular Bodies in the Central Nervous System. *New York Medical Journal*, August 13, 1898.

A Form of Disease Resembling the Pseudo-Sclerosis of Westphal and Strumpell (not yet published).

A Case of Erythromelalgia with Microscopical Examinations of Tissue from an Amputated Toe. *American Journal of Medical Science*, January, 1899 (with Dr. S. Weir Mitchell).

Dr. C. L. Leonard:

The Application of the Roentgen Rays to Medical Diagnosis. *Journal of the American Medical Association*, December, 1897.

The Diagnosis of Calculus Nephritis by Means of the Roentgen Rays. *Philadelphia Medical Journal*, August 20, 1898.

The Utility of the Roentgen Ray Method of Diagnosis. *International Medical Magazine*, November, 1898.

The Medical Aspect of Roentgen Ray Dermatitis. *The American X-Ray Journal*, November, 1898.

Dr. George Woodward:

Clinical Method of Estimating the Proteids of Milk. *Philadelphia Medical Journal*.

Dr. Joseph Sailer:

A Case of Rapidly Fatal Cerebritis, Resembling Cerebro-spinal Meningitis. *Journal of Nervous and Mental Disease*, September, 1896 (with Dr. J. Hendry Lloyd).

A Case of Leukemia. *Transactions of the Association of American Physicians*, 1896 (with Dr. John H. Musser).

Hypertrophic Nodular Gliosis. *Journal of Nervous and Mental Disease*, June, 1898.

Also a number of papers in the *Transactions of the Pathological Society of Philadelphia*, Vol. 18.

Dr. Charles H. Frazier:

An Experimental Investigation of the Physiological Effect of the Local Application of Hot Air on General Metabolism. *Annals of Surgery*, October, 1897.

Dr. Samuel M. Hamill:

The Salivary Conditions in Anæmia. *Journal of American Medical Association*.

It is with great pleasure that I announce that the Laboratory will receive financial contributions amply sufficient to continue and to expand its usefulness. A benefactor, who, for the present, desires to remain unknown, is contributing the sum of \$8500 yearly as a temporary maintenance fund, with the expectation of subsequently converting this into a fixed endowment.

Dr. George Woodward, one of the associates of the Laboratory during several years, is contributing the sum of \$1200 annually, paid in monthly installments, towards the salary of an Associate in Physiological Chemistry.

At the present time a number of changes are being made in the arrangement of the rooms of the Laboratory, as it has been found that their practical usefulness would be very much increased by certain alterations. Much expensive apparatus is still required to complete the equipment of the Laboratory, and some of this will be received shortly.

I am very respectfully yours,

ALFRED STENGEL.

## APPENDIX VII.

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### UNIVERSITY HOSPITAL AND NURSES' HOME.

*To the Provost of the University:*

Sir:—In presenting the report of the Hospital of the University of Pennsylvania for the year 1897, the Managers point with pleasure to the increased capacity and usefulness of the Institution. The opening of the Agnew Wing marks an epoch in the history of the Hospital. Five wards, containing 160 beds, with three operating amphitheatres, have thus been added to it. The wards are thoroughly lighted, ventilated and heated. Three of them have a solarium at one end, which adds materially to the comfort of the patients both in winter and summer. The amphitheatres are constructed in accordance with the demands of modern hygiene and supplied with proper sterilizing apparatus. These, as well as the wards, are provided with the best and most modern plumbing. This splendid addition to the resources of the Hospital emphasizes the fact that the old amphitheatre and buildings should be brought up to the same standard, and it is the intention of the Managers to undertake this important work as soon as they see their way clear financially. The opening of the new wing has much increased the running expenses of the Hospital, making it necessary to have a larger number of nurses and attendants, and entailing greater expenses for cleaning, heating and lighting. The present Nurses' Home is too small to accommodate the number of nurses now necessary, and it therefore becomes imperative on the Managers to enlarge the building devoted to their use. Plans have therefore been prepared, and as soon as \$10,000 shall have been raised the construction of this addition to the Home will be commenced.

The generous way in which the Hospital has been cared for by its friends in the past gives us a reasonable hope that we may have the addition ready for occupancy in the autumn of the current year. Since the last report was issued, many minor improvements have been made with a view to keeping the Hospital in the best sanitary condition. The floors of the corridors, in the main building, in the Gibson Wing and in Wards D and C, have been renewed where they were worn, and these, as well as all the floors in the wards and corridors, have been revarnished and waxed. The walls and ceilings in Wards B, C, D, E, G, H and I, as well as the corridor and stairway leading to the private floor, have been painted and the woodwork varnished. Private Room 10 has been thoroughly renovated. The opening of the new wing, by providing space within it for the Surgical, the Gynæcological and the Orthopædic Dispensaries, and thus vacating the rooms used for these purposes in the old building, has enabled the Managers to enlarge the space assigned to other dispensaries, to refit the old apartments and to provide much needed facilities for clinical teaching in the outdoor department.

Annex B, a bright and cheerful room with two open fireplaces and with space for ten beds, has been assigned as a ward for sick University students. It is now being repaired and repainted and will soon be fitted up by the University.

The total number of patients treated in the wards was 1608, an increase of 112 over the preceding year. Of these, 1005 were free and 603 were pay patients. Fourteen hundred and one were discharged either cured or in various stages of improvement, 73 died and 134 remained in the Hospital, January 1, 1898. The number of new cases treated at the Dispensaries was 9027, in the Receiving Ward 1091, while the number treated at their homes was 53.

The only important change in the officers of the Hospital was caused by the resignation of the Assistant Super-

intendent, Miss Roberta M. West, and your Board selected for this important position Miss Linda Richards, whose reputation as an organizer of training schools is well known throughout the country, and the beneficial result of whose work is already apparent.

The Managers desire to express their appreciation of the efforts of the Board of Women Visitors, and to thank them for their untiring interest in the Hospital and for the numberless ways in which they (by their expenditures of money and time) have aided the Hospital and contributed to its well-being.

The Managers hereby tender their thanks to all donors to the Hospital for their gifts. They desire also to thank the Medical Staff of the Hospital and Dispensaries, and also the officers of the Hospital, for the skill, care and conscientiousness with which they have performed their various duties.

During the past year several legacies have been received, which, coming at a time when they were greatly needed, have been more than usually welcome. Dr. W. D. McGowan, a graduate of the Medical Department of the University, left to the Hospital \$20,000 to endow the Ligonier Free Beds. The sum of \$1648.96 has been received from the estate of Jane Hunter, \$6432.67 from the estate of Andrew C. Butler, \$2000 from the estate of W. O. B. Merritt, \$15,000 from the estate of Sarah Marshall, and \$7000 from the estate of Mary M. Johnson.

All these amounts are in the hands of the Trustees for investment, the income to be used for the benefit of the Hospital.

Owing to the enlargement of the Hospital it became necessary to employ 18 more nurses, and there are at present 60 nurses on duty. Of these 5 are graduates, 15 in their third year, 9 in their second year, 23 in their first year, with 8 probationers. The new extra Diet Kitchen has been opened, and a competent graduate nurse having been assigned to it, there is now ample opportunity for the nurses to acquire practical experience in cooking for



the sick. The greater part of the cooking for the private rooms and all the extra diets from the wards are now cooked in this Kitchen.

### THE TRAINING SCHOOL FOR NURSES.

Eighteen hundred and ninety-seven completes the eleventh year of the existence of the Training School for Nurses connected with the Hospital of the University of Pennsylvania.

Progress has been made along the various lines of instruction. Lectures, classes and ward work for the perfecting of the three years' course have been carefully revised and systematized.

Through the efforts of the Board of Women Visitors and the Training School Committee a "Diet Kitchen" has been fully equipped with all modern conveniences for cooking, the teacher's salary assured, and everything in that Department put on the proper basis to insure the best results. A graduate of the School has been placed in charge. Two nurses of the first year, each serving one month, with a maid, prepare all the food for the private patients and all the special diets for the wards.

By the opening of the Agnew Wing it became necessary to increase the nursing force from forty-two to sixty. The Home having been found entirely inadequate for the former force, the effort to house and provide for an increase of eighteen has been little less than heroic, and threatens to be overwhelming in the future unless relieved by the generosity of liberal minded and charitably disposed friends.

The accommodations that we have been able to supply, while fairly comfortable, are not such as the officers of the School approve of, or what pupils are led to expect when entering a Training School for Nurses.

Scattered, as they are, in different localities in the Hospital, the supervision and discipline cannot be as carefully carried out, nor can they be permitted as much lib-

erty out of doors as when concentrated in one building devoted exclusively to their use. Notwithstanding many difficulties and discouragements, the efforts to elevate the standard of nurses and nursing have been crowned with a degree of success most gratifying to the officers of the School.

Early in the year occurred the death of one of the pupils, Mary E. Petrekin, March 18, 1897, and a little later we have to record the death of a probationer, L. Irene Kulp.

The general health of the nurses during the latter part of the year has been exceptionally good.

#### STATISTICAL REPORT.

- 1 graduate nurse in charge of the Diet Kitchen and extra diets in wards.
- 1 graduate nurse, in charge of all clinics and dispensaries.
- 1 graduate nurse, in charge of medical clinics, and one surgical clinic.
- 1 graduate nurse, head nurse on private floor.
- 1 graduate nurse, night superintendent.
- 15 nurses in third year.
- 9 nurses in second year.
- 23 nurses in first year.
- 8 probationers.

60

Requests for admission . . . . .	512
Rules sent . . . . .	447
Applications filled and returned . . . . .	108
Applications accepted and filed . . . . .	50
Applications rejected . . . . .	58
Probationers leaving for various reasons . . . . .	13
Probationers accepted . . . . .	24
Nurses died . . . . .	1
Probationers died . . . . .	1
Nurses discharged for cause . . . . .	1

On behalf of the Managers,

FRANCIS P. SIBLEY,  
Secretary.

## APPENDIX VIII.

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### REPORT OF THE DEAN OF THE DEPARTMENT OF DENTISTRY.

*To the Provost of the University:*

Sir:—I have the honor to submit to you the following report of the condition of the Department of Dentistry for the academic year, 1897-98:

The total number of students matriculated, 1897-98 . . .	437
Of these, there were students of the third year . . .	106
Of these, there were students of the second year . . .	144
Of these, there were students of the first year . . .	176
—	437
Number of new matriculates, including those admitted to advanced standing . . .	199
Of these, there were admitted upon presentation of certificates . . .	152
Admitted upon examination . . .	14
Admitted to advanced standing . . .	33
—	199

Those admitted to advanced standing presented certificates from the following institutions:

Baltimore College of Dental Surgery . . .	1
Boston Dental College . . .	1
Dental Hospital, London . . .	1
Faculty of Medicine, Paris, France . . .	1
Indiana Dental College . . .	1
L'Ecole Dentaire, Paris, France . . .	1
L'Ecole d' Odontotechnique, Paris, France . . .	1
Missouri Dental College . . .	1
New York College of Dental Surgery . . .	7
New York College of Pharmacy . . .	1
Philadelphia Dental College . . .	1

Royal College of Surgeons, Edinburgh, Scotland . . . . .	3
Toronto Dental College . . . . .	1
University of California, Dental Department . . . . .	2
University of Freiberg, Germany . . . . .	1
University of Halle . . . . .	1
University of Iowa, Dental Department . . . . .	1
University of Königsberg, Germany . . . . .	1
University of Michigan, Dental Department . . . . .	1
University of Minnesota, Dental Department . . . . .	1
University of Pennsylvania, Medical Department . . . . .	2
University of Vienna, Austria . . . . .	2

The countries represented in the Department are as follows:

Middle States . . . . .	259
New England States . . . . .	62
Western States . . . . .	25
Southern States . . . . .	18
Pacific States . . . . .	11
Argentine Republic . . . . .	1
Australia . . . . .	3
Austria . . . . .	2
Barbadoes . . . . .	1
Brazil . . . . .	1
Canada . . . . .	15
China . . . . .	1
Cuba . . . . .	3
Ecuador . . . . .	2
England . . . . .	3
France . . . . .	5
Germany . . . . .	5
Hawaii . . . . .	1
Mexico . . . . .	1
New Zealand . . . . .	3
Nicaragua . . . . .	4
Puerto Rico . . . . .	1
Russia . . . . .	3
Scotland . . . . .	2
South Africa . . . . .	1
Sweden . . . . .	1
Switzerland . . . . .	2
United States of Colombia . . . . .	1

SUMMARY.

United States and Canada . . . . .	390
Foreign countries . . . . .	47

The amount of work performed in the Operative and Mechanical Branches has been as follows:

OPERATIVE.	
Number of operations . . . . .	21,419
Number of patients . . . . .	9,440
MECHANICAL.	
Number of operations, including crown-and-bridge and technic work . . . . .	2,873
Amount of gold used for filling, exclusive of that used in mechanical work . . . . .	81 oz.
Number of students in the Graduating Class . . . . .	106
Number of students who received the degree . . . . .	95

The total number of students matriculated for this session exceeds the total number for the previous session by sixty-four, which represents not only a gratifying increase, but the largest number of students matriculated in any one year since the existence of the Department. It is matter for congratulation that the increase noted occurred at a time when the completion of Dental Hall furnished facilities for the accommodation and training of this large body of students, for had an equal number of applicants presented before the increased facilities were provided a large number of those asking admission would have been necessarily rejected.

The experience of a year's occupancy of the new Dental Building has shown that both as to its plan and arrangement as well as in its construction and equipment the work was wisely and carefully done. Conceived, as it was, upon original lines, with no existing building as a pattern, and with but few precedents as guides, it is gratifying to note the adaptability of the material result to the general educational system of the Department. But few errors in the building plan are noticeable and they are of minor importance and are being corrected as the demand arises.

By reason of the facilities afforded, a complete organization of the work of instruction has been made possible. As a consequence the work of the students is thor-



ough and the educational results attained are better. This is particularly true of the practical Laboratory and Infirmary work.

A not unlooked for educational result of the occupancy of Dental Hall is the effect which, as an environment of the students, it exerts upon their deportment and professional ideals. Placed in clean and artistic surroundings, and provided with an equipment which is equal to that used by at least the average practitioner, and far superior to many, an appreciation of the character of his material surroundings is engendered, his taste is cultivated and his ambition stimulated so that as a practitioner he is at least inclined to maintain the standards which have influenced his career as a student.

As intimated in my previous report, the question of an increased standard of entrance requirement for the Department has been favorably considered by the Faculty. Believing that the maximum increase of the entrance requirement should be attained progressively, the following scheme was adopted:

Candidates for admission are required to present evidence of a preliminary education as follows: For the session of 1898-99, a certificate of high school entrance; for the session of 1899-00, a certificate of two years' high school attendance; for the session of 1900-01, a diploma of an approved high school having a three years' course, or a certificate showing three years' attendance at a high school having a four years' course; or certificates from other schools showing equivalent education. In lieu of such diplomas or certificates, the applicant will be required to pass a matriculate examination, which shall in each case be the equivalent of that forming the basis of the certificates of required preliminary education.

It is believed that the enforcement of the foregoing requirements will not only meet with the approval and support of intelligent members of the dental profession, but will secure a better grade of student material for professional training. Further, there is reason to believe that

because of the rational and moderate character of the requirement no decrease in the size of future matriculating classes is to be anticipated.

The development of University spirit during the past year throughout the Department is a noteworthy result of the wise policy of the authorities of the University in practically recognizing dental professional training as a legitimate field of University education. The vitalizing effect of the policy noted is manifested not only in the student body as an uplifting force, but affects its Alumni whenever it has been clearly brought to their notice.

A practical manifestation of the interest of the Alumni in the reorganization of the Department upon University lines has been expressed by official action at the last annual meeting of the Dental Alumni Association whereby a committee was appointed to solicit funds for the care and embellishment of the Campus around Dental Hall. Nearly five hundred dollars were subscribed, as the Treasurer's report will show in particular.

While the Department at present is equipped so that it furnishes facilities for dental training of a very thorough character, its future development should be provided for. Certain features of its curriculum need strengthening by an increase in its corps of instructors in order to attain the best results.

The demand for post-graduate instruction is a growing one which should be met by the establishment of a Post-graduate Department, properly equipped with instructors and the necessary facilities not only for post-graduate instruction, but for original research work. It is hoped that in the near future these needs may be adequately provided for.

The athletic relationships of the Department continue to be satisfactory. The utmost care has been exercised in maintaining a proper balance between athletic and academic work, and there has been no case of academic failure because of undue preponderance of the former over the latter.

While the slight delay and the confusion incident to the establishment of the Department led to some difficulty in the smooth working of the educational plan at the beginning of the session, adjustment to the new conditions was speedily attained and the result of the session's work has been highly creditable. The great improvement in the whole working system made possible by the superior facilities of the Department give strong grounds for the belief in a continued increase in its prosperity for the future.

Respectfully submitted,

EDWARD C. KIRK,  
Dean.

## APPENDIX IX.

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### REPORT OF THE DEAN OF THE DEPARTMENT OF VETERINARY MEDICINE.

*To the Provost of the University:*

Sir:—I beg to submit my report on the progress of the Department of Veterinary Medicine for the year ending August 31, 1898. During the year of this report the attendance has been equal to that of 1896-97. There were fifteen students in the first-year class, one more than the year before. For three years preceding this year the attendance has been slowly falling. It is gratifying to note that there was not a further decrease this year.

For several years the prices of farm animals have been very low, and this has had a tendency to lessen the demand for veterinary services in general practice, and has probably had the effect of deterring some young men from entering upon the study of this profession, but during the same period the work of veterinarians has expanded greatly in other directions, so that at this time the field for veterinary work is larger than ever before. The expansion has been in the direction of public work, meat inspection, cattle inspection, dairy and milk inspection and work of investigation in connection with the United States and State Departments of Agriculture and Agricultural Experiment Stations. At this time live stock values are increasing, and with the return of prosperity for the stock breeder there will be further increase in the demand for veterinary services, so that I feel justified in anticipating a larger entering class next year than we have had for several years.

A factor that has been of considerable advantage to the Veterinary School during the past year, and that will continue to exercise a favorable influence for some years

to come, is a pamphlet entitled "The Veterinary Profession," the publication of which was made possible by the liberality of Mr. Harrison K. Caner. This pamphlet is made up of articles on the different phases of veterinary work, and was prepared by the Alumni and members of the teaching staff of the Veterinary School. A large number of these pamphlets was sent to veterinarians and to others interested in the subject, with the result that a great many inquiries in relation to the Veterinary School have been received.

The standard of instruction in the Veterinary School has always been high and the course has been thorough in the subjects taught. The Department of Veterinary Medicine of the University of Pennsylvania has, since its foundation, held a high and leading position among American veterinary schools. The marked success of the Alumni of the School in the practice of their profession, and their advancement to high stations in competition with veterinarians educated elsewhere, speak in the strongest terms of the value of the instruction given at the School. In the past, students about to enter upon the study of veterinary science have had to decide between attendance upon one of a number of schools requiring but two years' attendance and a few more thorough institutions with courses covering three academic years. At this time, however, the demand is for especially well-trained veterinarians—men who can engage in some one of the new departments of veterinary work. Moreover, some of the States now require veterinarians to pass the examination of a State Examining Board before they can engage in practice. Many of these Examining Boards require the candidate to have obtained a degree from a veterinary school requiring three years' attendance upon instruction. In addition to this, many of the public positions open to veterinarians are governed by the rules of the Civil Service Commission and are filled by competitive examination. All of these influences combine to favor the institution of learning that provides its students with the



most thorough training. The veterinary profession in this country has now, in its public relations, after many years' effort, emerged from the "horse doctor" period.

If we are to keep fully abreast of this new demand, and to continue to fulfill our function as well in the future as we have in the past, it is important that material addition shall be made to the resources of the Veterinary School.

The support of the Veterinary School has always been derived from special courses and it has never received an appropriation from general University funds. During the past year, as previously, the continuation of the School has been possible through the liberality of the family of the late J. B. Lippincott. The income of the School, in addition to the contributions of the Lippincott family, is derived from tuition fees. The total income for the School for the year amounted to \$8057.15, the expenditures to \$7758.96, leaving a balance of \$298.19. The work of the School under these limitations has been made possible by the fact that the members of the teaching staff have received exceedingly low salaries. The highest salary attached to a full professorship in the Veterinary Department last year was \$800. Of course, this is far from adequate compensation for the work performed. Instruction in the Veterinary School requires a great deal of time. The Professor of Surgery, for example, is engaged three full forenoons and two afternoons of each week, with regular classes, in addition to school and hospital work at other times, and the Professor of Anatomy and Zoötechnics has classes every day. Since salaries are so low it is necessary for the members of the teaching staff to devote the major part of their energies to work outside of the School. The result of this situation is unfortunate, because it is thus impossible for the teachers to engage in time-consuming research and original work that are needed to advance veterinary science.

Bacteriology is now taught by Dr. M. P. Ravenel, in a special course for veterinary students. This makes it

possible to place special stress on the bacteriological diseases of animals that are of greatest importance; a specialization in instruction that was formerly impossible.

A new one-hour lecture course for third-year students on Veterinary Ethics, Jurisprudence and Business Methods, by Dr. W. Horace Hoskins, has been added this year.

The greatest need of the Veterinary School at this time is a provision for salaries that will make it possible for the teachers to devote more of their time and energy to its work and interests. It is also important that provision shall be made for additional instruction in veterinary branches that are of increasing importance to the profession and to the public. More special instruction should be furnished in Physiology and Pathology. A special course in Meat Inspection should be provided, and, if the Veterinary School is to maintain a leading position, it should embark in some entirely new lines of work and prepare to educate students in all that pertains to animal husbandry. To do this, additions to the resources of the School and its equipment will be necessary. The importance of the subject, however, is great enough to justify the expenditure of considerable amounts in this direction. The live stock industry is one of the foremost industries of the United States, and a high proportion of our population is engaged in agriculture, which depends in large measure upon the live stock industry. The Veterinary School constitutes at present the most direct and special connection between this large and important class of citizens and the work of the University. A School of Animal Industry in connection with the Department of Veterinary Medicine would be a most logical union, and would enable the University to accomplish an important work and to greatly enlarge its field of usefulness.

LEONARD PEARSON,  
Dean.

## APPENDIX X.

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### REPORT OF THE VETERINARY HOSPITAL.

*To the Provost of the University:*

Sir:—I have the honor to submit to you the following report of the Veterinary Hospital for the year ending August 31, 1898:

There has been a gratifying increase in the number of animals treated in the Hospital and in the free out-of-doors clinics, as is shown by the subjoined comparison with the preceding year.

#### YEAR ENDING AUGUST 31, 1897.

Hospital cases ("in cases") treated . . . . .	958
Dispensary cases ("out cases") treated . . . . .	2098
	3056

#### YEAR ENDING AUGUST 31, 1898.

In cases treated	{	Horses and cows . . . . .	355
		Dogs and cats . . . . .	725
			1080
Out cases treated	{	Horses and cows . . . . .	1530
		Dogs and cats . . . . .	1141
			2671
		Total . . . . .	3751

Each successive year since the inauguration of the dispensary service, or daily, free out-of-door clinic in the fall of 1890, has shown an increase in the number of animals presented at these clinics. During the past year, to have ministered with skill and tender care to the ailments of nearly three thousand dumb animals, of which the larger part must have gone unrelieved but for the

gratuitous, and by no means inexpensive, aid extended by this Department of the University, is to have performed a work of great economic value to the community, and to have done much to alleviate suffering and insure more considerate treatment of animals. Yet the immense value of this work to that large number of our people whose living depends on the work of one or two horses, a service which does not only prevent continuation of suffering, but seeks to bind the broken limbs and heal the wounds, has by no means received the substantial recognition at the hands of charitable people which it so well merits.

In the Hospital 1080 cases were treated, an increase of 122 over the preceding year. This does not include the 727 horses shod in the Farriery, many of which were shod for the correction of defects of the feet, under the supervision of the Clinical Staff. Numerous alterations and repairs which improve the sanitation and add to the comfort of the patients have been made in the Hospital for Larger Animals.

The Infirmary for Smaller Animals continues to attract an ever-increasing number of patients, and to be the most profitable, as, also, one of the most instructive departments of our Hospital. Heating this building by stoves having proved unsatisfactory, steam will be introduced. A dog ambulance has been purchased and small animals are now brought from a reasonable distance to the Hospital free of charge.

The Farriery, under the skillful workmanship of Mr. Franz Enge and his assistant, is not only indispensable to the Hospital, but has attracted to itself a *clientele* which has now rendered this branch of the Hospital nearly self-supporting for the first time in its history. There is urgent need of an entire rearrangement of the interior of the shop, with a new floor, ceiling and more light.

The entrance to the Hospital from Thirty-sixth and Spruce Streets has been transformed under the direction of the University into a beautiful boulevard. It is to be

regretted, however, that the roadway was built of cinders, a material which is readily cut up by heavy vehicles and badly washed with every heavy rain. When wet or dry it forms an uninviting foot-path, and the clouds of dust that rise from it and sift through the Hospital in dry summer weather are distinctly objectionable. It is hoped that these cinders will be removed and replaced by asphaltum, or at least by trap-rock.

While the Hospital buildings are in excellent condition of repair and attractive to the eye, the grounds bounded by the Ambulance Stable, the Hospital, the Infirmary for Smaller Animals and the Philadelphia Almshouse property are both unsightly and valueless for the present purposes of the Hospital, by reason of the considerable bank of dirt that still remains. The bank should be removed that the space may be utilized for paddocks for horses, exercise yards for dogs, etc. At present the entire appearance of the premises suffers through lack of this improvement.

Since the last Hospital report was submitted the State Live Stock Sanitary Board has erected a building on the grounds of the Veterinary Hospital, to be used in connection with its research work. The State Live Stock Sanitary Board has also received permission to occupy some of the laboratory room on the second floor of the Infirmary for Small Animals. The new building that has been erected is a brick stable one story high, seventy-six feet long and twenty-six feet wide. It contains two large apartments for six cows each, and three smaller rooms twelve feet square. It is situated three feet east of the line dividing the grounds of the Veterinary Hospital from the Botanical Garden and twenty-five feet northeast of the Infirmary for Small Animals. The Hospital has made no charge for these privileges, and is pleased to have this opportunity to help the State to conduct its important investigations in an economical manner. The facilities that have been offered by the Hospital would have cost the State a considerable sum if the work had been done else-



where. It was thought appropriate for the Hospital, which has received small appropriations from the State on several occasions, to improve this opportunity to make a special direct return to the Commonwealth.

J. E. GILLINGHAM,  
President.

Attest: JOHN W. ADAMS.

## APPENDIX XI.

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### REPORT FROM THE LABORATORY OF HYGIENE.

*To the Provost of the University:*

Sir:—I have the honor to report that for the year ending with August 31, 1898, instruction has been given in this Laboratory to 302 students; of these, 286 were undergraduates and 16 were graduates of this and other institutions. Of the undergraduate students, 210 were of the second-year Medical Class and 76 were of the third-year Class in Dentistry. Of the graduate students, 12 pursued studies in Practical Bacteriology and 4 in Practical Hygiene. In addition to this, the regular didactic course of lectures on General Hygiene was given to the fourth-year Medical Class. This course consists of one lecture weekly throughout the academic year. Four lectures were given in the Nurses' Training School upon Prophylactic Measures against Infectious Diseases.

As usual, the Laboratory has been called upon for aid by outside individuals. The nature of this work is in the line of analyses and examinations of materials suspected of being detrimental to health, as well as of Pathological secretions and Tissues. For the year the work in this category has included thirty-six bacteriological and twenty-three chemical examinations of water; six examinations of sputum, four of urine and twelve miscellaneous examinations.

At the close of the last academic year, Mr. E. G. Horton, Assistant in Bacteriology, resigned his position, and it gives me great pleasure to say that he took this step in order to accept the place of Chemist and Bacteriologist to the State Board of Health, Columbus, Ohio, a posi-

tion which is to him a distinct advancement. Dr. George Küsel was appointed to succeed Mr. Horton in the work in Bacteriology.

For the first time since its foundation the Thomas A. Scott Fellowship in Hygiene was not filled; for the very good reason that the electors to the position did not regard the qualifications of the applicants as sufficient to justify appointment.

From the preceding it will be observed that the demand for teaching in this Department continues to be very much more in the line of Practical Bacteriology than in that of Hygiene. In my last report I gave what I believed to be the principal reasons for this, and you may also recollect that our efforts to eliminate this obstacle and to create a demand in this State for the service of properly training sanitarians met with almost total failure. Notwithstanding such discouragement I believe a plan of official recognition, such as a formal certificate or a diploma or a degree, would be more or less instrumental in creating a greater desire for proper systematic training in this important field. I do not feel prepared at this time, nor would it be proper in this place, to enter into the details of the organized group of studies that would lead to this reward, but I trust this suggestion may receive your consideration.

As in the reports for the two preceding years, I must again direct your attention to certain important needs of this Department. The scarcity of class-room and lecture-room facilities continues to exercise its detrimental influence upon the development of the usefulness of this Department in several directions, namely, because of the large classes of undergraduate students who present themselves for instruction, and the necessity of dividing them into a number of small sections suitable to the room at our disposal, it is impossible for us to carry the teaching beyond the merest rudiments of the work; the frequent repetition of such teaching, with the amount of preparation in the way of materials, renders the work of the

assistants directly in charge of the classes little more than mere drudgery; and, of most importance, the continuance of this instruction for but a limited time each day throughout the entire year is practically prohibitory to independent research work on the part of the members of the staff. The detrimental influence of this close attention to the teaching of the numerous small sections throughout the year upon the productiveness of the staff is annually becoming more and more manifest through the diminution of independent investigations that are conducted in this Laboratory. I do not feel that I am going too far in saying that every effort consistent with reasonable service to the teaching facilities of the School should be made to encourage independent research and to identify every teacher in the University with some one or more important phase of investigations. In short, our teachers should be investigators as well.

For lack of accommodations we are still obliged to deliver our lectures on General Hygiene to the Senior Medical Class in Medical Hall, a building located at some distance from the Laboratory. In consequence these lectures are of necessity purely didactic, whereas they should be, and could be, made in large part demonstrative had we the room in our building for the accommodation of the class. It is plainly impossible to convey and erect properly constructed working models, for purposes of illustration, at a distance from the Laboratory in which they should be erected and explained. I would again call your attention to the time wasted by the present system under which our lectures are given. As the matter now stands, one lecture a week is delivered throughout the whole year. Ordinarily the aggregate number is from twenty-eight to thirty. With a week's interval between each lecture, it is evident that continuity of thought on the part of student is broken, and that at each lecture some time must be lost through such recapitulation as is necessary to correct this deficiency. In so far as this Department is concerned, I am convinced that much would be gained

through concentration of work. With proper facilities at our command, I see no reason why suitable instruction, to at least the undergraduate classes, could not be condensed into at most one-half of the year. This would leave the remaining half of the year to the student for the pursuit of other studies equally important, and to the assistants for such uninterrupted scientific research as would best insure their intellectual advancement.

In conclusion I might say that estimates of competent architects reveal the fact that an expenditure of \$15,000 on our building would suffice to provide the class-room and lecture-room facilities that are requisite to bring the quality of the work done in this Department up to the demands of the times and up to that given in other progressive institutions.

Respectfully submitted,

A. C. ABBOTT, M. D.,  
Director.



## APPENDIX XII.

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### REPORT OF THE DIRECTOR OF THE FLOWER OBSERVATORY.

*To the Provost of the University:*

Sir:—Since the last annual report there has been no change in the equipment or personnel of the Observatory. The buildings, grounds and instruments have been maintained in good condition, and the latter have been kept in pretty constant use so far as weather has permitted.

The series of observations with the zenith telescope, begun October 6, 1896, has been continued to the present time. The number of individual determinations of latitude is now about 3900. The first installment of this work, from October 6, 1896, to August 16, 1898, embracing 3213 individual latitude determinations, will soon be ready for the press in case no unforeseen delay occurs. Although the definitive results have not been fully worked out, it can be said in a general way that a variation in the latitude of about four tenths of a second of arc is clearly shown, having a period of fourteen months.

The large telescope has been employed as follows: Measurement of double stars by Mr. Eric Doolittle; determination of position of comets and minor planets by Mr. Evans; entertainment and instruction of visitors on Thursday evening of every week.

Since the last report somewhat more than 1700 single measurements of double stars have been made, making a total since the installation of the instrument of 2200. Five hundred separate pairs have been measured: a complete observation consisting of not less than four measurements on different nights.

The mechanical construction of the instrument has

proved to be exceedingly satisfactory, the instrumental errors being very small.

The optical parts are perhaps as near perfection as we can hope for. Stars separated by a distance of  $0''.5$  or less are easily measured when atmospheric conditions are favorable. In some cases stars whose distances are from  $0''.25$  to  $0''.30$  have been satisfactorily observed. Also faint objects which at other observatories have been found to be at the extreme limit of visibility of telescopes of the size of this one have been measured without difficulty.

No effort has been made to discover new pairs of stars, but about a dozen such have been met with incidentally. It is believed that more important work can be done in accumulating data for perfecting our knowledge of known systems than in searching for new ones.

Since January 1, 1898, determinations of position of minor planets and comets have been made as follows:

Planet 207.....	4	determinations.
213.....	4	"
321.....	1	"
Comet <i>b</i> , 1898.....	27	"
<i>c</i> , .....	2	"
<i>e</i> , .....	3	"
<i>f</i> , .....	4	"
<i>i</i> , .....	2	"

An abstract of the results, except in case of the last two comets, has been published in the "Astronomical Journal."

It is recommended that the latitude and double star work be published as soon as it can be gotten ready for the press, which will probably not be later than January 1, 1899.

There are at present in the Library of the Observatory 550 volumes bound in boards, 175 volumes bound in paper, 559 pamphlets, 69 volumes unbound periodicals,

127 separate numbers of periodicals. Besides these there are a considerable number of duplicates.

Some months ago the books and pamphlets belonging to Dr. Kendall, which were deposited here, became the property of the University. The following have been retained here: 261 volumes bound in boards, 140 volumes bound in paper, 249 pamphlets, 22 separate numbers of periodicals. The remainder have been delivered to the main library.

Other accessions to the Library are as follows:

The American Ephemeris, 2 volumes, 1 pamphlet.

The Department of Agriculture, Washington, 1 pamphlet and The Monthly Weather Review for the year.

The Austrian government, 5 pamphlets and the monthly meteorological reports.

The Imperial Academy of Sciences, St. Petersburg, 8 numbers of the Bulletin of the society.

The American Academy of Arts and Sciences, Boston, 25 numbers of Transactions.

Various observatories, 4 volumes, 19 pamphlets.

Individual authors, 5 pamphlets.

Respectfully submitted,

C. L. DOOLITTLE.

## APPENDIX XIII.

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### REPORT OF THE DIRECTOR OF THE BOTANIC GARDEN.

*To the Provost of the University:*

Sir:—I beg to submit the following report of progress in connection with the University Botanic Garden for the past year:

In my last report the need was emphasized of increased greenhouse accommodation for undergraduate and graduate study. Through your generous interest our needs in this respect have been amply provided for. Three plant houses were erected at the close of 1897 and two during April of the present year. These comprise a warm-temperate and sub-tropical Fernery measuring  $40 \times 11$  feet. A portion of this has been specially arranged as a case for filmy ferns, and in it is a collection of these delicate forms from Jamaica donated by Mr. Schumo. A Palm House,  $59 \times 26$  feet, opens from the Fernery, and already is fully stocked with a varied collection of Tree Ferns, Cycads, Screw Pines, Bamboos, Aroids, Figs, etc. Not a few of these were formerly crowded in the old houses, and the growth made since removal to their new quarters has been noteworthy. Opening from the right side of the Palm House is the Succulent House,  $27 \times 12$  feet. This is now filled with a representative collection of Aloes, Agaves, Gasterias, Euphorbias, Cacti, Stapelias, etc., which require for successful growth a common mode of treatment.

Two houses, each  $59 \times 13$  feet, constitute the last addition, and open on the left side of the Palm House. The inner of these now contains the collection of greenhouse Orchids, Begonias, Crotons, etc. The outer house is proving of special value for observations on the germination of

seeds, for experimental work by the students, and for the growth of cool plants. The University now possesses eight plant houses with a glass surface of fully 9000 feet, and two series of propagating frames of ample capacity.

Equally important with the above is the change that has been effected on Pine street in front of the Garden. Through your representations, and in pursuance of the scheme for improvement of the University Campus advocated and supported by Mrs. Harrison, the City Council removed Pine street, from Thirty-sixth to Thirty-ninth street, from the city plans, and placed it under the control of the University. Generous donations from a number of its friends have permitted the conversion of this into a garden avenue, which will alike be a recreation ground for the students and a valuable extension of the Botanic Garden. A large collection of shrubs and trees was set out along the walk in April, and the growth made since that time has been highly gratifying.

I have again to report the distribution of several thousand specimens during the year to various educational institutions of the City and State. Parties of students from some of these institutions have visited the Garden along with their instructors, and have expressed their appreciation of the benefits received.

In my report of last year I indicated the probable formation of a Botanical Society, which might be closely affiliated with the University Garden, and aid it in various ways. In October, of last year, a successful meeting was held under your presidency, and the progress of "The Botanical Society of Pennsylvania" since that time has been steady and successful. The Society was fortunate in securing the aid of Professor Henry Kraemer as Secretary, and to his constant care not a little of the past success has been due. The membership of the Society is now 141. Valuable papers have been read by our students and instructors, as well as by members of the Society, while several of the latter have given material aid toward the further development of the Garden.



Five papers, which largely owe their value to the facilities offered by the Garden, have been prepared during the year, and are now ready for publication. They will appear shortly in the next number of the "Botanical Contributions."

During the year donations have been made to the Garden as follows:

From Cornell University Greenhouses, a collection of Begonias.

From Harvard Botanic Garden, a small collection of Orchids and other greenhouse plants.

From Washington Botanic Garden, 59 miscellaneous greenhouse and hothouse plants.

From Mrs. Conard, Mr. Clarence H. Clark, Mr. Dissel, Mr. Henzey and Mr. LeBoutillier, collections of greenhouse ferns, etc.

From Mr. R. Craig, a choice set of named Oranges, Cannas and Crotons.

From Mr. Schumo, a collection of filmy ferns, gathered by him while on a visit to Jamaica.

I again acknowledge with sincere thanks the receipt of numerous seed packages from the botanical gardens of Kew, Dublin, Edinburgh, Cambridge, Munich, St. Petersburg and other European centres, as also from the Marquess Hanbury of Ventimiglia, Italy. These have supplied us with some interesting and rare forms not procurable in this country in the living state.

In April I conducted a botanical party of fifteen students and members of the Botanical Society to Wilmington, N. C. While the information gained on the spot was of value to every one in the party, the University Garden was enriched by several cases of plants collected by one of my assistants.

I may again be permitted to record with great satisfaction the additional improvements effected on the University Campus through the interest and sympathy of Mrs. Harrison. While the alteration that has taken place on Pine street, as described above, has mainly engaged the

attention of the Garden staff, various minor changes have been made that add to the main features of improvement. Though there is still opportunity for some additional developments in the future, the important modifications that were needed to give the Campus an effective appearance have now been carried out. Students and teachers alike bear testimony to the value of the desired change.

Respectfully submitted,

JOHN M. MACFARLANE.

## APPENDIX XIV.

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### REPORT OF THE DEPARTMENT OF ARCHÆOLOGY AND PALEONTOLOGY.

*To the Provost of the University:*

Sir:—For the Department of Archæology and Paleontology the past year has been one of unusual activity.

The Museum Building, to be known as “The Free Museum of Science and Art,” towards which the first subscription was made in 1893, and the foundations were laid in 1897, has been erected and is now approaching completion. The whole plan, when carried out by future generations, will cover an area of twelve acres, and will reach a cost of some \$2,250,000. Only the westernmost section of this plan, which in itself is a structure of vast proportions, has been erected at an outlay of \$360,000, the money for which has been raised. This, extensive as it is, will barely suffice to house the large and important collections now awaiting display.

Of this section, three distinct structures have been erected through the liberality of individuals—Dr. William Pepper, Daniel Baugh and Mrs. Fitler, whilst the two wings, occupied respectively by the Library and the Lecture-room, are the gifts of Mr. William L. Elkins and of Mr. Peter A. B. Widener.

In the death of Dr. Pepper the work has sustained a cruel blow.

From the time when Dr. Pepper, as Provost of the University, first realized the importance of Archæology in its bearing upon modern thought, and the necessity in

this City for a great Archæological Museum, he devoted to the furtherance of this work his highest energies.

It was then a new idea—few at first understood his aims, and the undertaking cost him serious effort. But his patience was unbounded and his will was equal to the task.

After his resignation as Provost of the University in 1894, he was persuaded, by those whom he had interested in the work, to accept the Presidency of the Department of Archæology. Since then its management became one of the principal interests of his life. The building now approaching completion was largely the result of his personal effort. To the work he freely gave not only his time and his means, but his best thought.

The Free Museum of Science and Art was the last creation of Dr. Pepper's genius connected with the University, and it is upon its welfare that, at the time of his death, he bestowed his greatest solicitude. But a few days before he breathed his last he sought, by a formal expression, to soften the blow which his possible loss must inflict upon the institution. This last thought of its dying President must ever remain a precious memory to the Department which already owed him so much.

The burden of carrying on this great work now rests heavily upon those who helped him, and, although the building fund is secured, the maintenance of so extensive a plant will tax their energies to the utmost. It is therefore hoped that the public will recognize the value to the community of the splendid educational plant, provided for the City by a few public-spirited citizens, and will take a liberal interest in its support.

For eight years the Committees of the Department have been at work in various parts of the world, exploring, excavating and collecting, until a vast amount of material of incalculable value to science and to education has been gathered together within the precincts of the University.

The Babylonian Committee, after interrupting its

labors for one year in order to give Dr. Haynes a much-needed rest, has again sent him out with two trained assistants, one of whom is a student of the School of Architecture of the University of Pennsylvania, to continue the work at Nippur. The expedition is to last two years, at a cost of \$15,000 per annum, and \$30,000 have been raised for the purpose.

The Egyptian and Mediterranean Committee has steadily continued its labors in co-operation with the Egypt Exploration Fund, the Egypt Research Account, and, recently, the American Exploration Society, and through its efforts a portion of the brilliant results of Mr. Quibell at El Kab, and of Mr. Flinders-Petrie at Denderah, have been added to the collections.

In the Etruscan field, thanks to the liberality of Mrs. Phebe A. Hearst, and of the Honorable John Wanamaker, excavations were continued last winter at Ardea, Toscanella, Conca, Falerio, Montebello, Fiano, Narce, Orvieto, Castellano, Mazzano and Cervetri.

Through the friendly relations existing with the Peabody Museum, of Harvard, a fine collection of casts from the excavations conducted in Central America by the above institution has been secured; and, in connection with the American School of Classical Studies at Rome, extensive casts of the artistic details of the great Arch of Trajan, at Beneventum have also been obtained.

The Ethnographic series, already of such magnitude, has been magnificently increased by a unique collection made by Mr. E. A. McIlhenny during his recent journey to the Arctic region, where he gathered together 1500 objects illustrative of the life, customs and ideas of the Eskimo tribes from Bering Straits to the Mackenzie River.

A complete series, including implements, weapons and other objects used by the Aborigines in Borneo forms also a striking and priceless addition to the Museum. This collection, which may be divided into two parts supplementing each other, was made by Dr. William H. Furness



on the one hand, and on the other by Alfred C. Harrison, Jr., and Dr. H. M. Hiller during their recent expedition to the Island of Borneo.

A smaller, but equally interesting, collection from Morocco was also formed by Dr. and Mrs. Talcott Williams during a scientific expedition undertaken in the summer of 1897, the results of which arrived at the Museum at the beginning of this year. A peculiar interest attached to this from the fact that so little was known with regard to the tribes living in the region of Mount Atlas.

It may be seen by the above that the work of the Department, is dealing almost exclusively with original research, and that in accumulating within the walls of its Museum original material to which scholars and students can turn with absolute confidence, it is carrying on its work truly along University lines. Collections formed at second hand by purchase cannot have the same scientific value as those composed of original material.

During the year the Department has published the third part of Dr. Hermann V. Hilprecht's publication on the Babylonian Inscriptions found at Nippur, and Dr. Maximilian Uhle has prepared the MS. of his report upon his important discoveries of the previous year on the site of the Ancient Temple of the Sun at Pachacama, Peru, which is now ready for publication. The Department has also issued a quarterly bulletin regarding the progress of its work.

Besides the results of the explorations mentioned above, special collections have also been obtained through the liberality and interest of members of the Board and of the Association. The most striking of these are the collections of coins of Mr. Robert C. H. Brock and the collection of fans of Mrs. Lucy Wharton Drexel.

The Department is also indebted to Dr. James Kingsbury for a collection of Polynesian weapons, and to Mrs. Frishmuth and Mr. Charles Laubach for a number of objects illustrative of manners and customs in the United States during the Revolutionary period. The collection

of games has also been materially increased through the interest of Mrs. Drexel.

Through Mrs. Drexel's liberality, the Department is about to establish an annual prize for the best Archæological Excavation, and for the best report based upon Archæological Excavation by an English-speaking scholar. This prize is to be in the form of a gold medal to be known as "The Drexel Medal."

Respectfully submitted,

SARA Y. STEVENSON,

Secretary.

## APPENDIX XV.

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### REPORT OF THE DIRECTOR OF THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY.

*To the Provost of the University:*

Sir:—During the past year the completion of the new wing, erected for the Institute by General Wistar, has permitted the removal of the workshops to more suitable quarters in the basement, and has enabled us to introduce a complete plant for electric lighting and to place it in satisfactory operation. The new heating plant has been found efficient and economical. To it was added a boiler for the supply of hot water to all parts of the building. Improvements to the buildings and grounds have been made from time to time, as well as all repairs necessary to thoroughly maintain the entire property.

The work in the Museum has been pushed steadily forward and some of the visible results are to be found in the four handsome cases in which are displayed the anatomy of the human temporal bone. The teratological collection has been increased by three interesting specimens and the anatomical and pathological series have received several important special preparations.

In the Department of Comparative Anatomy are now exhibited over one hundred of the mammalian skins brought from Borneo last year by Dr. William H. Furness. They were carefully mounted by Ward, of Rochester, and form an interesting and instructive display of the fauna of that country.

Dr. Furness has generously added to his original collection the larger results of his second explorations in Borneo. This collection contains some forms new to science, many rare and typical vertebrates, and a large series of duplicates. Special mention should be made of the fine skins and skeletons of the Bornean rhinoceros and the nine additional specimens of the orang. Three of the latter were preserved entire in spirits, one which died on reaching the Zoölogical Garden forming a very perfect specimen. Death masks were made of this specimen and distributed to various scientific bodies.

An interesting and striking addition to the education exhibit is the fine skeleton of the fin-back whale, presented by the Biological Department of the University from the collections bequeathed by Professor Cope. This specimen, which is over seventy feet long, will be suspended from the ceiling of the upper exhibition hall.

The reserve collections have been increased during the year by over two hundred human skeletons obtained from the cadavers used in the dissecting rooms of the Medical Department. Through arrangements made with special agents in various parts of the country for the supply of zoölogical material, the Institute has already received several hundred valuable specimens, among them a fine skin and skeleton of the musk-ox. By constant watchfulness and judicious expenditure, the deficiencies in our series are gradually being filled, and in a few years it may be hoped that the institute will possess a most complete collection for study and investigation.

During the year the entire reserve collection of Comparative Osteology has been examined and the bones thoroughly cleaned.

The Laboratories have been open as usual throughout the year, and special work has been carried on by Drs. Spiller, Cattell, Montgomery, Shoher, Wood and Randall. A list of their publications will be found in the appropriate Appendix of the Provost's Report. The Director published in March the first volume of his Mammalian Anat-

omy, and with the Assistant Director made a careful study of the human temporal bone, the results of which are printed and displayed in the Museum cases.

Respectfully submitted,

HORACE JAYNE,  
Director.



## APPENDIX XVI.

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### REPORT OF THE LIBRARIAN.

*To the Provost of the University:*

Sir:—I have the honor to present the report of the Library of the University for the academic year, extending from August 31, 1897, to August 31, 1898. The gratifying growth of the University's collection of books that has characterized the past decade has been continued during the last academic year. The additions to the main library number upward of 16,000 volumes and several thousand pamphlets. To these must be added 5164 volumes, which represent the accessions to the Law Library, and which brings the total number of books in this Library to 19,259. Taking as a basis 141,902, which was the total number of bound volumes in the Library, according to the Librarian's report of last year, the present number of books and pamphlets would aggregate over 160,000. Until, however, the work of accessioning and shelf-listing the entire Library (to which I refer later on) shall have been completed, it is not possible to more than approximately estimate the exact number of books in our possession.

Additions during the past year have come to us from three sources (1) purchase, (2) gift, and (3) through the University's Exchange Bureau. Through purchase we have secured for the main library 7457 volumes. The funds available for this purpose were (1) The Tobias Wagner, (2) The J. B. Lippincott, (3) The Isaac Norris, (4) The William Pepper, (5) The B. B. Comegys, Jr., (6) The

C. P. Krauth, (7) The George L. Harrison Foundation, (8) The German Dissertation Fund, (9) an unexpended balance of the State appropriation of 1897, (10) a special appropriation of about \$1800 for periodicals, (11) an appropriation of \$2000 for the purchase of books, and (12) two special funds of \$1000 each for the purchase of books on American History and English History, respectively, and a fund of \$1340 for completing files of periodicals.

The Tobias Wagner fund was used for obtaining works of a miscellaneous character, as requested from time to time by members of the Faculty; the Isaac Norris fund was devoted largely to the purchase of works of a general reference nature for bibliographical purposes; the J. B. Lippincott fund to purchases in English Literature; the William Pepper fund to Medical books; the B. B. Comegys, Jr., and the C. P. Krauth funds for philosophical works; the George L. Harrison Foundation, forming part of the "Harrison Foundation for the Encouragement of Liberal Studies and the Advancement of Knowledge," is used for the purchase of books especially needed by those holding fellowships in the Graduate School.

The total number of periodicals received is 835. Of these, 479 are subscribed for by the University, 95 are gifts and the balance are received through the Exchange Bureau, or are sent to the Library from the Medical Department. The current numbers of certain technical periodicals are deposited for greater convenience of use in the respective departments, but the Library maintains a control of these numbers, and as the periodicals are bound they become part of the general collection.

The Laboratory of Hygiene receives 14 periodicals; the John Harrison Laboratory, 14; the Biological Laboratory, 14; the Psychological Laboratory, 10; the Architectural Department, 12; the Department of Mechanical Engineering, 21; the Department of Civil Engineering, 23. All the others are displayed in the outer reading room of the main library.

The appropriation of \$2000 for general purchases was divided into twenty groups, of \$100 each, corresponding to the subjects represented in the College and in the Graduate School.

Through the special fund of \$1000 for books on American History, 830 volumes were obtained. The special fund of \$1000 for books on English History is not quite exhausted. Up to the present 378 volumes have been purchased out of this fund, while out of the special fund of \$1340 for completing files of periodicals, 788 volumes have been secured. Special mention should be made of a collection of 700 pamphlets on Slavery obtained through the fund for American History.

A notable accession was a collection of parliamentary papers, secured through the generosity of Miss Mary K. Gibson. Up to the present, 2246 volumes of "Blue Books" and State papers have been received.

By bequest of the late Professor E. D. Cope, the University has come into possession of his Biological Library, consisting of about 4000 volumes and pamphlets. Special arrangements were made for the cataloguing of this library, and it is hoped that this work will be completed in a few months.

Professor E. Otis Kendall has presented to the University his Mathematical Library, consisting of about 1600 volumes and pamphlets.

Through the generosity of Messrs. Hampton L. Carson, Warren G. Griffith, Charles W. Henry, J. Levering Jones and Frank M. Riter, the Library has received a set of "Stevens' Facsimiles of Manuscripts in European Archives relating to America, 1773-83," in twenty-three handsomely bound volumes. Additions to the George De Benneville Keim Library were sent by Mrs. Keim, and a supplementary collection of 212 volumes, bequeathed to the University by Mrs. Julia Biddle, was received in December, 1897. A large number of miscellaneous books and pamphlets have as usual reached the Library as gifts. Among the donors may be mentioned

Dr. Daniel G. Brinton, Dr. Horace Howard Furness, Rev. James I. Good, Provost Charles C. Harrison, Mr. T. W. Koch, Dr. S. Weir Mitchell, Dr. John H. Musser, Mr. J. G. Rosengarten, Mr. John C. Sims, Dr. DeForrest Willard and Dr. Talcott Williams. Special mention should also be made of the very valuable catalogue of the British Museum Library in sixty-three volumes (complete so far as published), which came to the Library as a gift.

A fine portrait of Wordsworth, painted by Henry Inman for the late Professor Reed, which was donated to the University by Mr. George C. Thomas, has been hung in the inner reading room near the Lippincott alcove. A letter from Wordsworth to Professor Reed, with a few lines on the margin from Mrs. Wordsworth, and which was also presented by Mr. Thomas, has been placed on exhibition in the glass case in the outer reading room.

Through the University's Exchange Bureau, so efficiently conducted by Mr. J. Hartley Merrick, we have received upwards of 1300 dissertations from the leading Universities of Germany, Holland, Belgium, as well as from the Universities of this country, and in addition to this, the publications of a large number of scientific bodies in all parts of the world. The steady growth of our exchange list is one of the most gratifying indications of the esteem in which the University is held in foreign countries. Our collection of United States and municipal documents has grown considerably during the past year. Besides the regular publications of the Government, and of many of the official publications of various States, and of all prominent cities, we have been enabled to fill out many gaps in the division of documents, thanks to the kindness of officials who almost invariably responded favorably to requests made of them. We also receive reports of many railroad and tariff associations and miscellaneous documents from commercial and educational organizations.

The following figures, indicating the use of the Library, show a considerable increase over those of last year:

Subject.	Used in Reading room.	Taken out.	Total.
Periodicals and general works . . . . .	677	445	1,122
Philosophy . . . . .	443	462	905
Religion . . . . .	557	549	1,106
Sociology . . . . .	3,197	2,005	5,202
Philology . . . . .	422	500	922
Science . . . . .	528	629	1,157
Useful arts . . . . .	223	243	466
Medicine . . . . .	580	331	911
Fine arts . . . . .	245	288	533
Literature . . . . .	2,688	5,146	7,834
History . . . . .	4,757	3,069	7,826
Total . . . . .	14,317	13,667	27,984
(September 4, 1897, to September 3, 1898.)			

The total number of books used in the reading room last year (August 31, 1896, to August 31, 1897) was 9491, and the total number of books taken out of the Library, 10,702. It should be mentioned that the figures above given do not include the use of the books in the Law Library, nor the periodicals or reference books in the reading room, nor the use of books belonging to the main library, but deposited, for greater convenience, in various buildings of the University.

From reports received, it would appear that these Departmental Libraries have been found to be of great service and are much used by professors and students. It seems desirable, however, at an early date, to take up the question as to the limitations to be placed upon the scattering of the books of the Library involved in the formation of these Departmental Libraries. Many of these books are of a kind that are needed also in the main library, and it should be possible, at all events, to reduce from time to time the number of books in the Departmental Libraries by transferring to the main library those that are not absolutely needed for the work in the Departments. At present the distribution of books among the various departments is as follows:

Biological Hall, (a) Biological Laboratory, 750 volumes; (b) Psychological Laboratory, 558 volumes; Me-



chanical Engineering Department, 345; Civil Engineering Department, 750; John Harrison Laboratory of Chemistry, 482; Laboratory of Hygiene, 741; the Flower Astronomical Observatory, 1284; School of Architecture, 449; Department of English Literature, 424; School of American History, 475; Germanic Seminar, 3991; Wharton School about 2800, of which number about 1600 volumes are Government documents, duplicating those in the main library.

During the summer months important alterations were made in the interior arrangements of the reading room, which was divided into two portions by means of a glass partition at the archway. In the lower end, now constituting an inner reading room, eighty-seven desks have been introduced, while the six alcoves forming the terminus to the room have been utilized for the formation of a reference library. Each alcove is devoted to a group of subjects, and, so far as possible, such subjects are grouped together as are related to one another. Along the walls of this inner reading room book-cases have also been placed for dictionaries, encyclopædias, biographical and general reference works, and in addition to this, a large case for works of a general character has been erected at one end of the room. The books in the reference library have been chosen with the aid of the members of the Faculty, the main object in view being to select such books as a student working in any particular subject might have occasion to consult. In all, upwards of 10,000 books have thus been made available for the use of students. The indications are that the fitting up of this reading room with desks and the institution of the reference library will lead to a large increase in the use of the building. The upper end of the reading room has been fitted up with tables and cases for the display of current numbers of periodicals.

Some modifications have also been introduced in the charging system at the delivery desk, for the purpose of exercising a better control over the books taken from

the stacks. The revision of the catalogue was begun during the summer. In place of the double subject and author catalogue, a single, so-called dictionary catalogue has been substituted. Since the beginning of March, 1898, all the new books received at the Library have been catalogued in accordance with the modified system required by a dictionary catalogue; and with the help of additional assistants, engaged during the summer months, several classes of the books already in the Library have been thoroughly revised and made to conform to this system. This revision is being continued during the winter, with the help of a large additional force of cataloguers, so that in a year or so the entire work will be completed. It may be well to add that this revision includes the proper accessioning and shelf-listing of the collections which had not hitherto been done.

Lastly, I beg to say a few words about the needs of the Library. Through gift or purchase we have secured within the past ten years a series of most valuable collections of a special character. Among these may be mentioned the general Philological Library of Professor F. A. Pott, the Classical Library of Professor Leutsch, the Germanic Library of Professor Bechstein, the Stillé Medical Library and the Biological collection of the late Professor Cope. The utility of these collections depends largely upon our supplementing them by publications issued within the respective fields since the libraries have been received and upon our filling out the more serious gaps in the collections themselves. These gaps are particularly noticeable in the cases of the Classical and Medical Libraries. In order, for example, to bring the collection in Greek and Latin Philology, Literature and Archæology to the standard required for the high order of work done in our University in these subjects, a fund of \$2000 could be profitably spent. A section of the Library which stands in particular need of being strengthened is the Philosophical. While our collection in Psychology is an ample one, we possess but few of the important books and

sources for the study of Mediæval Philosophy. The divisions of Ancient and of Modern Philosophy are better represented, though there are serious gaps here that should be filled out, while the collection in Ethics ought to be largely supplemented to respond to the requirements of our students in the Graduate School.

I have the honor to be, sir,

Very respectfully yours,

MORRIS JASTROW, JR.,  
Librarian.

## APPENDIX XVII.

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### THE DORMITORIES.

*To the Provost of the University:*

Sir:—I have the honor to submit, on behalf of the Parietal Committee, the following report upon the conduct of the Dormitories during the academic year 1897-1898.

An institution of such recent origin as the Dormitories may well be regarded in the light of an experiment. The questions which their two-years' trial may be expected to answer are the following:

1. Do they meet a real need?
2. Are they adequate to existing needs?
3. Can they be improved?

We allow the fact that during the college year the Dormitories had their full complement of occupants, to answer the first question for itself. In this connection, it must be remembered that in housing our students the Dormitories have to compete with the private boarding-houses of a great city, whose variety would make it possible to gratify needs and tastes that could not be indulged in a homogeneous community of students. If no need existed save that of cheap lodging and of a free foot, the Dormitories would doubtless be at most a luxury. But they have partly met and partly created a demand for such health and beauty of surroundings as can be obtained at a small cost and with a trifling sacrifice of freedom. To have met such a demand, and still more, to have created it, is sufficient evidence of their utility.

The question as to the adequacy of our Dormitory

system is one that is rapidly pressing upon us. At the present time there are on file eighty applicants for rooms for whom no accommodations are to be found. This number does not, we believe, represent all of those who would take Dormitory rooms if such could be furnished; the report of a few failures discourages many attempts. We believe, therefore, that in the near future the extension of the Dormitory system will be a pressing need. In this connection it will be interesting to note that we are as yet able to meet the demand for double rooms—that is, studies with two bedrooms—but not that for single rooms, and for suites of a study and one bedroom. Of this last kind we have at present none. With increasing refinement of student character comes an increasing demand for privacy.

The last question—In what way may the Dormitories be improved?—is one that time alone can answer. The students are perfectly organized; they have in their representatives a recognized means of expressing their wants, and so far have shown no hesitancy in taking advantage of such means. In answer to demands expressed in this way the University has already introduced several improvements, among which may be mentioned a satisfactory system of filtering water, a general reception room for guests of students, an improved service. With a continuation of the frankness and good feeling which at present exist between the Dormitory occupants and University authorities, it may be expected that such reasonable demands for improvement as must from time to time arise will be promptly met. Serious defects in the present Dormitory system we have as yet failed to discover.

It only remains to report an interesting experiment connected with the Dormitories, and one whose success or failure is of the greatest consequence. I refer to the system of government now in vogue. In your last report the general scheme of government was outlined. Charge of the Dormitories is delegated by the Board of Deans to a Parietal Committee, consisting of a regent and three proc-



tors. All are officers of instruction, and the proctors live in the Dormitories. It is, of course, impossible for three men to be the guardians of the good conduct of three hundred, and they have therefore made it their business to organize the occupants of the Dormitories into a self-governing body. Each house elects its representative, and these representatives form a board having its own constitution and electing its own officers, and passing (subject to the approval of the Parietal Committee) its own laws for the government of the Dormitories. Their authority extends to all cases of discipline arising in the Dormitories,—every student, however, retaining the right to appeal from their decision to the Parietal Committee. It is, of course, evident that the success of such a scheme depends entirely upon the character of the men selected as representatives, and indirectly upon the tone of the student body making the choice. It was thus with considerable interest that the results of an experiment of this kind were awaited. It is a source of great satisfaction to the Parietal Committee to note that each year the office of representative has gained in dignity, and that the character of the men elected to the office has received correspondingly careful consideration at the hands of the students choosing them. As a result, the present morale of the Dormitories is satisfactory to the Parietal Committee, and, we believe, to the students themselves. Having made their own laws (the Parietal Committee never having been called upon to veto their legislation), the students are bound to recognize them as reasonable. On the other hand, these laws are sufficient to insure the quiet of the Dormitories, as is witnessed by the fact that several of the University instructors make the Dormitories their homes. It is the hope of the Parietal Committee that their relations with the students under their charge may be as entirely pleasant in the future as they have been in the past.

Respectfully submitted,

EDGAR A. SINGER, Jr.,  
Secretary.

## APPENDIX XVIII.

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### REPORT OF THE DEPARTMENT OF PHYSICAL EDUCATION.

*To the Provost of the University:*

Sir:—I have the honor of making the following report on the work of my Department during the scholastic year 1897-98.

Believing the Sargeant system of physical examination to be most thorough and generally satisfactory, I have obtained the necessary apparatus to carry it out in its entirety. At the commencement of the autumn term of 1897, the Academic Council of the College passed a regulation requiring undergraduates of that Department to be examined once every year, and this was accordingly done, with the exception of the Senior Class, and such other students as were excused for special reasons by the Dean. In addition to the general examination, a special one of the eyes was also prescribed for the Freshman Class. Although these measures were innovations, the students generally were prompt in accepting them, and manifested considerable interest in their own condition and strength tests. The total number examined in the College Department was 461. Each received a summary of the results, and his individual defects and needs were pointed out, together with such explanations and advice as seemed appropriate. The health of the student body was found to be very good, so far as distinctly diseased conditions were concerned, but the number of young men showing evidences of lack of exercise and development, with the attendant train of minor evils, was large enough to emphasize again the crying need of an adequate gym-

nasium, which offers the only rational means of benefiting these cases. It is a pleasure to note, however, that of all the students examined in the College Department, no less than 38.6 per cent took permits for various athletic teams. The fact that more than one student in every three takes sufficient interest in athletics personally to enter into them is a strong refutation of the frequent charge that college sports have become too specialized to be of benefit to the students at large.

For the adequate care of students seriously sick, it seemed imperative that some arrangement should be made looking to their admission to our Hospital at less than the usual private room rates, many being quite unable to afford so severe a drain on their resources. On the other hand, the alternative of taking a bed in one of the general wards was so unpleasant as to result in many depriving themselves altogether of the benefits of Hospital treatment. The best solution of the difficulty appeared to be found in setting aside a private ward for the use of students only, where they would be free from disagreeable associates, and at the same time be under no greater expense than for an ordinary ward bed. With a view to encouraging the spirit of self-helpfulness, it was proposed to the students that they themselves should, by subscription, pay for the renovating and furnishing of the pleasant room dedicated to their use by the Board of Managers of the Hospital. The idea was received with favor, and a large part of the expense was actually met in this way. The ward was opened March 12, 1898, and five cases were treated in it, one being from the College, two from the Law School, and one each from the Medical and Veterinary Departments.

The care of those who are not sufficiently ill to require hospital treatment, but who nevertheless need medical attention, has been assigned to Dr. J. Dutton Steele, in his capacity of Students' Physician. Twenty-seven students availed themselves of the opportunity of receiving gratuitous medical attention thus offered. Of these, the Col-

lege furnished 8, the Medical Department 10, the Dental Department 9.

The number of visits made to students in their rooms was 67, and the number of office calls 49, making a total of 116. The total number of students treated in the students' ward, or by the Students' Physician, was thus 32. While this number is small, it must be remembered that some time is necessary for the student body to realize in a practical way the new privileges accorded.

The Freshmen whose eyes were examined by Dr. Mason W. Zimmerman, Ophthalmologist to the Department, numbered 183, two being women. There were 21 cases in which the impairment of vision was serious, and 5 of these had never received the much-needed attention. Altogether 31 were found suffering from uncorrected errors in such degree as to give evidence of eye-strain sufficient to interfere with the necessary study of a College course. Of this number six were wearing glasses which had become manifestly unsuitable. Two men were found to be the subjects of congenital color-blindness, but fortunately these students were not in courses where such a defect would be likely to prove disadvantageous.

It is gratifying to report that all eyes examined were capable of having their vision brought to the normal by proper correcting glasses, and in no case was grave damage by injury or disease found. From his examinations Dr. Zimmerman feels justified in the conclusion that a continuance of this systematic examination of the incoming classes will result in "a decided decrease in the number of students whose later work becomes impaired or interrupted by neglect of optical errors."

Respectfully submitted,

CASPAR W. MILLER, M. D.,

Director.

## APPENDIX XIX.

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### REPORT OF THE PUBLICATION COMMITTEE.

*To the Provost of the University:*

Sir:—Since the organization of the Publication Committee in May, 1897, the following matter has been published:

#### MATHEMATICS.

Vol. I, No. 1.

Contributions to the Geometry of the Triangle. By R. J. Aley, A. M.

Properties of the Locus  $r = \text{Constant}$ , in space of  $n$  Dimensions. By Paul R. Heyl, B. S.

#### ENGLISH.

The War of the Theatres. By J. H. Penniman, Instructor in English.

#### BOTANY.

Vol. I, No. 3.

A Chemico-Physiological Study of *Spirogyra nitida*. By Mary E. Pennington, Ph. D.

On the Structure and Pollination of the Flowers of *Eupatorium ageratoides* and *E. coelestinum*. By Laura B. Cross, Ph. D.

Contributions to the Life History of *Amphicarpæa monoica*. By Adeline F. Schively, Ph. D.

#### ZOÖLOGY.

Syllabus of Lectures on the Vertebrata. By Edward D. Cope, Ph. D.



## ECONOMICS.

Currency Reform. By J. F. Johnson, Professor.

## GERMANICS.

The Verb in Thomas Murner. By Daniel B. Shumway, Ph. D.

Gesang nach Amerika, Anno 1777.

Pastorius "Bee-Hive."

Historische Anmerkungen.

Schwenckfelder School Documents.

Reviews and Miscellaneous.

(In Americana Germanica).

## HYGIENE.

The Biological Relation between Bacteria and the More Highly Organized Flora of Running Streams. Comparative Studies upon the Pseudo-diphtheria or Hofman Bacillus, the Xerosis Bacillus, and the Löffler Bacillus. By David H. Bergey, M. D.

## UNIVERSITY BULLETIN.

## Volume II.

	Printing.
1. February .....	\$90 75
2. Washington's Birthday No.....	26 50
3. April .....	85 18
4. May .....	85 55
5. June .....	116 91

The following articles, published under other auspices, were received in Reprints for exchange purposes:

Weak Verb in Hebrew. Morris Jastrow, Jr., Ph. D.

Pastoral Influence in the English Drama. Homer Smith, Ph. D.

Back Numbers Political Economy Series and the Series in Philology, Literature and Archæology.

MISCELLANEOUS EXPENSES.

Printing title page for Volume III, Zoölogical Contribution.....	\$3 50
Wrappers addressed for mailing "Crepidula" .....	1 50
Printing pamphlet "Announcement of Publications" .....	10 00
Stationery, etc.....	28 35
Postage for the year (of which \$87.51 was used in mailing "Bulletin" to special lists).....	144 86

The following articles have been approved for publication:

Palatalization in Anglo-Saxon. By Clarence G. Child, Ph. D.

Rise of the English Satire. By Raymond McD. Alden, Ph. D.

M. D. LEARNED,  
Chairman.

## APPENDIX XX.

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Proposed Reforms of the Monetary System. (*Annals of American Academy of Political and Social Science*, March, 1898.)

JOHN W. ADAMS.

Der Lehrmeister im Hufbeschlag, von A. Lungwitz, Dresden, 1896. Translation into English of 8th edition. (J. B. Lippincott Co., Philadelphia, 1898.)

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A paper read at the meeting of the Medical Society of the State of Pennsylvania, held at Lancaster, Pa., May, 1898. (*Therapeutic Gaz.*, June 15, 1898.)

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JOHN ASHHURST, JR.

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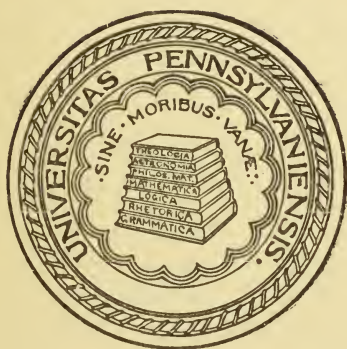
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# TREASURER'S REPORT.



August 31, 1898.





## APPENDIX XXI.

### REPORT OF THE TREASURER OF THE UNIVERSITY OF PENNSYLVANIA.

THE PROPERTY OF THE UNIVERSITY OF PENNSYLVANIA  
(part being held in trust and part in fee) is as follows, viz. :

I. Real Estate.....	\$4,057,460	82
II. Libraries, Museums, Apparatus, Furniture and Perpetual Insurance.....	514,952	84
III. Securities:		
Railroad and Corporation		
Bonds .....	\$1,165,019	42
Stocks .....	134,122	00
	<hr/>	1,299,141 42
IV. Mortgages:		
On property in Philadelphia and vicinity.....	\$363,903	33
Coupon on property in Chicago and Western cities .....	490,000	00
	<hr/>	853,903 33
V. Ground Rents, Philadelphia and vicinity	67,020	62
VI. Cash Balances in various Trust Companies .....	106,942	09
	<hr/>	\$6,899,421 12
	Income.	Principal.
Trusts .....	\$44,594 26	\$24,542 97
Administration .	18,911 18	
Hospital .....	2,582 98	16,310 70
	<hr/>	<hr/>
	\$66,088 42	\$40,853 67

#### THE OBLIGATIONS.

Current Loans and Bills Payable.....	\$85,754	65
Obligations of the General Fund.....	137,878	70
Bonds, Central Light and Heat Plant, etc....	135,400	00
Mortgage, No. 3451 Woodland Ave.....	5,500	00
"      "      3342      "      " .....	5,000	00
	<hr/>	\$369,533 35

## REAL ESTATE.

## IN PHILADELPHIA.

## IN FIRST WARD.

Twenty-three and one-half acres on Delaware River....	\$100,000 00
Two and eighty-seven one-hundredths acres on Moore Street .....	20,000 00

## IN FIFTH WARD.

Premises No. 131 South Fifth Street.....	17,000 00
Premises No. 224 Stampers Street.....	1,800 00

## IN SIXTH WARD.

Premises No. 58 North Fourth Street.....	20,000 00
“ “ 62 “ “ “ .....	18,800 00
“ “ 64 “ “ “ .....	14,600 00
“ “ 66 “ “ “ .....	20,000 00
“ “ 60 “ “ “ .....	30,000 00
Charity School Building, No. 66 North Fourth Street....	6,000 00
Premises Nos. 29 and 31 North Seventh Street.....	20,980 00

## IN ELEVENTH WARD.

Premises No. 549 North Second Street.....	9,000 00
Premises Nos. 429 and 431 North Second Street.....	7,239 76

## IN TWENTY-SEVENTH WARD.

Plot of ground between Thirty-fourth and Thirty-sixth Streets, Spruce Street and Woodland Avenue, with College Buildings and Medical Hall.....	643,799 27
Medical Laboratory.....	69,414 15
Plot of ground between Thirty-sixth, Spruce, Woodland Avenue, Woodland Cemetery and Guardian Street....	250,000 00
Library Building.....	209,142 08
Veterinary Building.....	40,358 56
Biological Building.....	36,844 98
Plot of ground between Connecting Railroad and Thirty- fourth Street.....	250,000 00
Plot of ground Thirty-third and Marston Streets.....	12,764 46
Plot of ground between Thirty-sixth and Spruce Streets, Woodland Avenue and Police Station.....	20,000 00
John Harrison Laboratory of Chemistry.....	113,607 82
Henry Howard Houston Hall.....	134,544 57
Dormitory Building, paid to August 31, 1898.....	387,158 77✓

Central Light and Heat Station.....	\$186,050 83
Department of Hygiene Building.....	50,000 00
Dog Hospital, Veterinary Department.....	11,771 30
Building Nos. 3348 and 3350 Walnut Street (Bennett Hall) .....	17,500 00
Building No. 3451 Woodland Avenue.....	5,500 00
Department of Dentistry Building, paid to August 31, 1898	245,084 49
Dining Hall, paid to August 31, 1898.....	19,877 22
Hospital Lot, Thirty-fourth to Thirty-sixth and Spruce to Pine Streets.....	125,000 00
Hospital Buildings.....	243,743 92
Gibson Wing.....	65,000 00
Nurses' Home.....	20,000 00
Mortuary Building.....	11,000 00
Maternity Building.....	29,000 00
Agnew Memorial Pavilion, paid to August 31, 1898.....	171,645 57
Pepper Clinical Laboratory Building.....	25,000 00
Museum of Science and Art, paid to August 31, 1898.....	178,209 85
Plot of ground Thirty-fourth and Chestnut Streets.....	60,000 00
Premises Nos. 3340, 3342, 3344 and 3346 Walnut Street..	30,000 00

IN TWENTY-NINTH WARD.

Premises No. 3011 Girard Avenue.....	5,300 00
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IN DELAWARE COUNTY, PENNSYLVANIA.

Reese Wall Flower Estate, Farm.....	30,000 00
“ “ “ “ Observatory Buildings.....	12,796 84
“ “ “ “ Professor's Residence and Library .....	11,808 25

IN ELK AND MCKEAN COUNTIES, PENNA.

About seven hundred acres.....	5,054 71
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IN LIGONIER, WESTMORELAND COUNTY, PENNA.

Sundry lots of ground.....	12,000 00
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IN SEA ISLE CITY, N. J.

Marine Biological Laboratory and Grounds.....	4,000 00
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IN MANCHESTER-BY-THE-SEA, MASS.

About seventy acres.....	29,063 42
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Total Real Estate.....	\$4,057,460 82
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## LIBRARIES, MUSEUMS, APPARATUS, FURNITURE AND PERPETUAL INSURANCE.

University Libraries.....	\$123,500 00
College Apparatus.....	50,000 00
Museum of Archæology and Paleontology.....	97,000 00
Wistar and Horner Museum.....	40,000 00
Dr. George B. Wood Museum.....	25,000 00
Museum of Biology.....	5,000 00
Laboratory of Hygiene.....	19,874 28
J. H. Towne Collection of American Fossils.....	4,975 00
Flower Observatory .....	24,098 78

### Furniture :

Medical Hall.....	10,302 90
Medical Hall, Ventilating Apparatus.....	24,086 90
Veterinary Building.....	3,867 38
Hospital .....	15,511 43
Biological Department.....	883 22
Library Building.....	10,511 62
College Building.....	7,500 00
Houston Hall.....	22,891 21
Dormitory .....	6,747 91
Dining Hall.....	522 42

### Perpetual Insurance :

On College Buildings.....	9,651 50
“ Veterinary Building and Dog Hospital.....	870 00
“ Hospital .....	4,747 50
“ Gibson Wing.....	825 00
“ Biological Building.....	285 00
“ Central Light and Heat Station.....	1,000 00
“ Department of Hygiene Building.....	875 00
“ Chemical Laboratory.....	1,300 00
“ Department of Dentistry Building.....	2,788 29
“ Anatomical Museum.....	337 50

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Total Libraries, Museums, etc.....\$514,952 84

## SECURITIES.

## RAILROAD AND CORPORATION BONDS.

5,000	Chicago Gas Light & Coke Co., 1937.....	\$5,000 00
21,000	Philadelphia & Reading R. R. Gen. Mtg. 4's.....	21,000 00
33,000	“ “ “ Car Trust, “D”....	33,000 00
3,000	“ “ “ Cons. 7's, 1911.....	3,000 00
25,000	“ “ “ Cons. 4's, 1937.....	25,000 00
12,000	Elmira & Williamsport R. R. Co. 5's.....	12,000 00
2,000	Pennsylvania R. R. Co. Cons. Mtg., 1905, reg....	1,924 00
1,000	Susquehanna Coal Co. 6's, 1911.....	1,000 00
5,000	Pittsburg, Cincinnati & St. Louis R. R. 7's, 1900..	5,000 00
25,000	Toledo, Ohio, Electric Street Ry. Co. 5's.....	25,000 00
32,000	Duluth St. Ry. Co. 5's, 1920.....	32,000 00
5,000	Metropolitan St. Ry., Kansas City, Mo., 5's, 1909..	4,894 17
30,000	Evansville & Terre Haute R. R. Co. 1st Mtg. 5's, 1942 .....	30,600 00
17,000	Bethlehem Iron Co. 1st Mtg. 5's.....	17,000 00
5,000	Erie & Western Transportation Co. 5's.....	5,000 00
55,000	International Navigation Co. 6's, 1906.....	55,000 00
13,000	Norfolk & Western R. R. Co. 6's, 1932.....	13,000 00
50,000	Atlanta Gas Light Co. 5's, gold, 50-year.....	48,750 00
2,000	Catawissa R. R. Co. extended 6's.....	2,000 00
101,000	San Antonio & Aransas Pass. R. R. Co. Reorg. Ctfs. ....	60,000 00
1,000	Millville Manufacturing Co. 7's.....	1,000 00
2,500	County of St. Louis, Minn., 6's, 1907.....	2,500 00
2,500	Wilmington, Columbia & Augusta R. R. Co. 6's, 1910 .....	2,500 00
10,000	Lehigh Navigation Co. gold 6's.....	10,000 00
1,350	Lehigh Coal & Navigation Co. 4½'s.....	1,471 50
5,000	Columbus & Indianapolis Central R. R. 2d Mtg. 7's	5,000 00
13,000	Wabash R. R. Co. 2d Mtg. 50-year gold.....	13,000 00
2,000	Saltzburg Coal Co. Gen. Mtg. 6's, 1914.....	2,000 00
3,000	Pittsburg, Shenango & Lake Erie R. R. 1st Mtg. 5's, 1940.....	3,000 00
5,000	Fairmount Coal & Coke Co. 1st Mtg. 4's, 1919....	5,000 00
150,000	Philadelphia & Reading Coal & Iron Co. 5's.....	152,500 00
22,000	City of Galveston, Texas, 5 per cent., 1954.....	22,000 00
25,000	Lehigh Valley R. R. 5's.....	25,000 00
53,000	Erie R. R. Co. prior lien 4's.....	48,082 50
25,000	Scranton Traction Co. 1st Mtg. 6's.....	25,625 00
22,000	Ohio River R. R. Co. 1st Mtg.....	22,660 00
100,000	Equitable Illuminating Co.....	102,660 00
1,000	Choctaw, Oklahoma & Gulf R. R. Co. ....	1,000 00
10,000	Raleigh & Gaston R. R. 1st Mtg.....	10,475 00



10,000	Syracuse Rapid Transit 1st Mtg.....	\$10,000 00
1,000	Western Gas Co.....	987 50
3,500	Union Pacific 1st Mtg. Land Grant.....	3,500 00
40,000	Pittsburg Consolidated Gas.....	41,000 00
3,300	Bloomsburg & Sullivan R. R. 1st Mtg.....	3,300 00
1,600	“ “ “ 2d Mtg.....	1,600 00
100	“ “ “ scrip .....	100 00
13,000	Kansas City, Mo., Gas.....	12,382 50
500	Philadelphia Country Club 1st Mtg. 5's, 1940.....	500 00
12,000	Buffalo & Susquehanna R. R. 1st Mtg. 5's, 1913..	11,940 00
21,000	Second Ave. (Pittsburg) Traction Co. 1st Mtg. 5's, 1934.....	21,000 00
30,000	Chicago & Erie R. R. 1st Mtg. 5's.....	31,975 00
2,000	Brooklyn, N. Y., Union Gas Co. Cons. 1st Mtg. 5's	2,000 00
40,000	Lehigh Valley R. R. Car Trust 5's.....	40,000 00
30,000	Central Light & Heat Station Bonds.....	30,000 00
30,000	Lehigh Valley Coal Co. 1st Mtg. 5's.....	29,850 00
25,000	St. Louis (Mo.) Merchants' Bridge Co. 1st Mtg. 6's, 1929.....	25,000 00
10,000	Sunbury, Hazleton & Wilkesbarre R. R. Co. 1st Mtg. 5's, 1928.....	9,380 00
400	Sunbury, Hazleton & Wilkesbarre R. R. Co. 2d Mtg. 6's, 1928.....	393 50
25,000	St. Louis Terminal Cupples Station Property Bonds .....	24,468 75
10,000	Oregon & Pacific R. R.....	10,000 00
Total Railroad and Corporation Bonds.....		\$1,165,019 42

## STOCKS.

16 shares	Lehigh Valley R. R. pfd.....	\$800 00
120	“ Wm. Cramp & Sons' Ship and Engine Building Co. ....	6,000 00
61	“ Norfolk & Western R. R. Co. ....	5,550 00
507	“ Lehigh Valley R. R. Co. ....	15,690 00
5	“ American Dredging Co. ....	500 00
10	“ Lehigh Coal & Navigation Co.....	500 00
500	“ Delaware & Bound Brook R. R. Co.....	75,000 00
242	“ Pennsylvania R. R. Co.....	12,766 00
27	“ Brooklyn Union Gas Co. pfd.....	2,160 00
238	“ Philadelphia & Reading R. R. 2d pfd.....	2,856 00
578	“ Philadelphia & Reading R. R. com.....	5,780 00
67	“ Safe Deposit & Trust Co., Pittsburg.....	4,020 00
25	“ Union Pacific R. R. pfd.....	1,500 00
10	“ Atlantic Snuff Co.....	1,000 00

Total Stocks..... \$134,122 00

## MORTGAGES.

## ON PROPERTY IN PHILADELPHIA AND VICINITY.

No. 2449 Nicholas Street.....	\$1,600 00
No. 707 Lydia Street.....	700 00
Nos. 752 and 754 South Eighth Street.....	4,000 00
Walnut Street, east of Sixth Street.....	13,333 33
Wallace Street, west of Nineteenth Street.....	6,000 00
Lancaster Avenue and Rockland Street.....	2,750 00
Cheltenham, Montgomery County, Penna.....	10,000 00
Cheltenham, Montgomery County, Penna.....	3,000 00
Gray's Ferry Road and Thirtieth Street.....	2,000 00
Jenkintown, Penna.....	4,320 00
Tenth and Auburn Streets.....	9,000 00
Twenty-first Street and Washington Avenue.....	35,000 00
No. 4044 Powelton Avenue.....	3,000 00
Nos. 2262, 2318 and 2320 North Front Street.....	8,000 00
Northeast corner Thirty-fourth Street and Woodland Ave.	5,000 00
No. 1343 Mount Vernon Street.....	2,700 00
No. 825 North Forty-first Street.....	4,000 00
No. 2977 Frankford Avenue.....	4,000 00
No. 2987 Frankford Avenue.....	4,000 00
Camden, N. J.....	10,000 00
Thirty-fifth Ward, Philadelphia.....	80,000 00
No. 1730 Pine Street.....	10,000 00
Glenwood Avenue and Sixth Street.....	28,500 00
Glenloch, Chester County, Penna.....	38,000 00
Sixty-second Street and Woodland Avenue.....	60,000 00
City Line and Washington Lane.....	14,000 00
Manchester, Mass.....	1,000 00

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Total .....\$363,903 33

## COUPON MORTGAGES ON REAL ESTATE.

In Chicago, Illinois.....	\$20,000 00
" " ".....	8,500 00
" " ".....	8,500 00
" " ".....	7,500 00
" " ".....	50,000 00
" " ".....	30,000 00
" " ".....	8,000 00
" " ".....	2,500 00
" " ".....	10,000 00
" " ".....	25,000 00
" " ".....	25,000 00
" " ".....	10,000 00

In Chicago, Illinois.....	\$27,500 00
“ “ “ .....	6,000 00
“ “ “ .....	6,500 00
“ “ “ .....	20,000 00
“ “ “ .....	10,000 00
“ “ “ .....	6,000 00
“ “ “ .....	6,000 00
“ “ “ .....	10,000 00
“ “ “ .....	6,000 00
“ “ “ .....	2,500 00
“ “ “ .....	2,500 00
“ “ “ .....	35,000 00
“ Dallas, Texas.....	25,000 00
“ Kansas City, Missouri .....	20,000 00
“ “ “ “ .....	20,000 00
“ Olympia, Washington.....	6,000 00
“ Lincoln, Nebraska.....	30,000 00
“ Des Moines, Iowa.....	35,000 00
“ Duluth, Minnesota.....	5,000 00
“ Atlanta, Georgia.....	6,000 00
Total .....	\$490,000 00

## GROUND RENTS IN PHILADELPHIA.

29 North Sixth Street.....	\$2,500 00
533 North Second Street.....	426 67
535 North Second Street.....	426 67
537 North Second Street.....	426 67
Green and New Market Streets.....	111 11
Moore and Otsego Streets.....	3,000 00
Twenty-second and Oakford Streets, 13 at \$800 each.....	10,400 00
Stiles Street, east of Nineteenth Street.....	900 00
Gray's Ferry Road.....	1,050 00
“ “ “ .....	12,950 00
“ “ “ .....	9,719 00
“ “ “ .....	18,000 00
“ “ “ .....	800 00
No. 429 North Second Street.....	2,400 00
No. 110 Spruce Street.....	1,866 67
Nos. 13 and 15 Parkham Street.....	400 00
No. 618 South Seventh Street.....	444 50
No. 128 North Water Street.....	1,133 33
Lebanon, Penna.....	66 00
Total Ground Rents.....	\$67,020 62

THE VARIOUS TRUSTS HELD BY THE UNIVERSITY ARE INVESTED IN THE REAL ESTATE AND SECURITIES ENUMERATED IN THIS REPORT, AND THE INCOME APPLIED IN ACCORDANCE WITH THE DIRECTIONS OF THE DIFFERENT TRUSTS.

The following is a list of the same:

Endowment Funds.	Amount Invested.	Amount Uninvested.
General Fund.....	\$2,013,554 85	
J. Herman Raht.....	250 00	
Phi Kappa Sigma.....	400 00	
Keble .....	13,614 41	
Elliott Cresson.....	6,700 00	\$1 65
Tobias Wagner.....	5,300 00	
Bloomfield Moore.....	15,000 00	
Thomas A. Scott.....	49,572 50	427 50
John H. Towne.....	418,465 43	
John H. Towne Collection of Fossils.....	4,975 00	25 60
John Welsh.....	51,775 00	22 24
A. Whitney.....	51,481 86	
Scholarship .....	19,400 00	49 63
A. Seybert.....	102,978 33	295 74
Rev. George D. Boardman.....		15 36
Alumni Hall.....	250 00	350 44
H. Tyndale Scholarship.....	11,543 50	151 28
S. W. Roberts.....	1,050 00	64 83
Wharton School.....	179,794 00	11 26
Assyrian Fellowship.....		189 55
Pepper Professorship of Hygiene.....	92,175 00	
J. Rhea Barton.....	60,080 00	20 48
J. Gillingham Fell.....	1,100 00	
Auxiliary Faculty of Medicine.....	36,269 00	7 16
Leidy Chair.....	2,180 00	3 16
Botanic Garden.....	5,207 44	2 99
Department of Biology.....	47,013 20	10 24
I. V. Williamson.....	47,500 00	
George S. Pepper Residuary Legatee.....	4,925 00	588 87
Francis S. Pepper.....	7,500 00	
Chair of Pedagogy.....	250 00	
Henry Reed.....	700 00	43 12
Latin Prize.....	1,000 00	25 80

Endowment Funds.	Amount Invested.	Amount Uninvested.
Oratory Prize.....	\$350 00	\$10 80
English Composition Prize.....	200 00	
J. Warner Yardley Prize.....	500 00	
Class of 1880 Prize.....	1,000 00	
Allen Memorial Prize.....	1,000 00	
Law School Prize.....	1,000 00	
Rev. C. P. Krauth Library.....	1,570 00	34 64
Agricultural Library.....	500 00	
Dr. William Pepper Medical Library.....	7,700 00	8 19
Tobias Wagner Library.....	15,449 17	17 91
J. B. Lippincott Library.....	7,000 00	
Isaac Norris Library.....	5,000 00	233 69
Reese Wall Flower Fund.....	122,513 87	23 13
John Harrison Laboratory of Chemistry....	114,929 82	68 34
Veterinary .....	64,945 94	
J. M. Bennett Endowment for Women....	17,500 00	1 02
Howard Houston Hall.....	160,435 78	
Howard Houston Hall Endowment.....	500 00	
Dormitory Building.....	387,158 77	
Dining Hall.....	19,877 22	
Dental Building.....	245,084 49	
Wistar and Horner Museum.....	40,000 00	110 11
Department of Law.....	7,700 00	35 08
John F. Frazer.....	6,290 00	42 64
Department of Hygiene.....	198,846 78	128 36
T. A. Scott Fellowship.....	10,000 00	
J. M. Bennett Endowment, Graduate De- partment for Women.....	40,237 50	
A. Sydney Biddle.....	20,000 00	
Simon Muhr.....	9,500 00	25 60
George L. Harrison Foundation.....	509,611 79	20,820 00
John Stewardson.....	13,095 00	676 56
Museum of Science and Arts.....	229,459 85	8,654 34
Law School Building.....	77,709 88	17,024 47
'87's House Dormitory.....	12,367 78	
Gymnasium Building.....	42 00	491 74
Hospital General.....	768,952 18	2,779 25
Hahn Ward.....	54,650 00	39 75
Alumni Ward.....	9,270 00	755 25
Mrs. G. W. Norris.....	10,000 00	
Bement .....	5,000 00	
Ward, Chronic Diseases.....	185,145 00	
Pepper Clinical Laboratory.....	25,000 00	
I. V. Williamson Hospital.....	47,420 00	80 00

Endowment Funds.	Amount Invested.	Amount Uninvested.
Children's Ward.....	\$25 00	\$7 07
Henry Seybert.....	60,271 86	45 45
George S. Pepper.....	70,900 00	70 82
Recto-Genito-Urinary Diseases.....	4,060 00	40 39
Anna M. Powers.....	6,000 00	
Mary W. Eskens.....	5,000 00	
Dr. D. Hayes Agnew Hospital.....	171,645 57	
Dr. D. Hayes Agnew Bequest for Care of Children .....	50,000 00	
Dr. D. Hayes Agnew Bequest for Mater- nity Hospital.....	1,000 00	
Andrew C. Butler .....	5,415 00	17 67
Ligonier Free Beds.....	35,875 00	2,334 88
Children's Orthopædic Ward.....	14,190 00	
New Nurses' Home.....	188 25	9,525 19
Ladies' Fund Maternity Hospital.....		350 44
A. Sydney Roberts Apparatus Fund, Chil- dren's Orthopædic Ward.....	6,000 00	264 54

Funds not for Investment.	Amount Received Including Balance.	Amount Expended.	Balance.
Hovenden Students' Aid Fund....	\$8 20	\$8 20	
Mrs. E. W. Harrison Fund, Im- provement of Grounds.....	3 97	3 97	
Mrs. E. W. Harrison Fund, Col- lection of Casts.....	228 51	70 00	\$158 51
Franklin Field Improvement Fund	685 20		685 20
Civil Engineering Equipment Fund	2,464 78	1,964 78	500 00
Architecture Lecture Course Fund	584 29	401 06	183 23
State Appropriation Advanced Work Fund.....	50,000 00	50,000 00	
Auxiliary Faculty Medicine Fees Fund .....	30 39	30 39	
Architecture Equipment Fund....	4,316 71	1,288 97	3,027 74
University Publication Fund.....	3,918 83	2,314 34	1,604 49
Professorship of Assyriology Fund	380 12	380 12	
Primary Election Inquiry Fund...	155 77	155 77	
B. B. Comegy's Prize Fund.....	50 00	50 00	
W. W. Frazier, Jr., Prize Fund...	100 00	100 00	
Eugene Delano Prize Fund.....	50 00	50 00	
Dr. S. Weir Mitchell Prize Fund..	25 00	25 00	
John C. Ropes Prize Fund.....	6 91	2 00	4 91
Debating Team, '99, Fund.....	17 34		17 34
Veterinary Publication Fund.....	1,003 04	815 16	187 88



Funds not for Investment.	Amount Received Including Balance.	Amount Expended.	Balance.
Contributions to Current Expenses,			
Veterinary Department Fund..	\$5,000 00	\$5,000 00	
Contributions to Current Expenses,			
University Fund.....	8,525 10	8,525 10	
Law Library Fund.....	5,281 64	5,056 91	\$224 73
Library Blue Book Fund.....	2,501 33	2,412 03	89 30
Needy Students' Fund.....	16,467 65	16,467 65	
Suspense Account (Estate G. S. Pepper) .....	2,743 20		2,743 20
Contributions to Current Expenses,			
Library Fund.....	757 39	757 39	
Library Special Appropriation, No.			
3, Fund.....	3,000 00	1,513 17	1,486 83
Students' Ward, Hospital Fund...	580 40	580 40	
Improvement of Pine Street Fund	4,023 06	4,023 06	
Improvement of Grounds Fund....	1,475 00	1,450 00	25 00
Current Expenses, University			
Campus Improvement Fund...	85 00	85 00	
Architecture—General Fund for			
Casts .....	71 05		71 05
Architecture—Peabody Fund.....	101 50		101 50
Lecture Course, State of Pennsyl-			
vania Fund.....	2,409 01	1,484 93	564 08
Eckley B. Cox, Jr., Fund.....	5,105 43	1,597 68	3,507 75

## UNIVERSITY TRUSTS.

## GENERAL STATEMENT.

Balance, August 31, 1897.....	\$188,464 63
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## Receipts:

Income from Invested Funds.....	\$97,090 61	
Donations for Endowment.....	202,521 15	
Donations for Trusts not for Investment....	104,857 58	
Securities Sold and Redeemed.....	307,303 10	
Advances to Trusts by Administration.....	38,831 33	
From Departments and other on account		
Sinking Fund and Bond Interest, Cen-		
tral Light & Heat Bonds.....	14,430 58	
Temporary Loan Repaid.....	2,541 45	
Transfer of Administration Accounts to		
Trusts .....	10,557 18	
		778,132 98
Total Receipts.....		\$966,597 61

## Expenditures:

Investments made and Accrued Interest		
paid .....	\$406,325 83	
Buildings and Grounds.....	284,207 76	
Taxes, Water Rent and Legal Expenses....	1,463 87	
Income Funds transferred to Administration	66,911 31	
Trusts not for Investment transferred to Ad-		
ministration .....	37,065 61	
Advances by Administration repaid.....	85,631 93	
Sinking Fund Bonds cancelled.....	10,000 00	
Sinking Fund Bonds, Interest paid.....	5,854 07	
		897,460 38
Balance .....		\$69,137 23

## BUILDINGS AND GROUNDS.

Dormitory .....	\$5,268 49
Dental Building.....	34,485 95
Museum Science and Arts.....	178,209 85
Law School.....	60,685 41
Improvement of Grounds.....	5,558 06

## TRUST ACCOUNT.

## RECEIPTS OF INCOME FROM INVESTMENTS.

General Fund.....	\$819 57
J. H. Raht Fund.....	10 00
Phi Kappa Sigma Fund.....	16 00
Keble Fund.....	1,208 78
E. Cresson Fund.....	215 94
Tobias Wagner Fund.....	212 00
Bloomfield Moore Fund.....	883 40
Thomas A. Scott Fund.....	3,802 74
J. H. Towne Fund.....	13,099 04
John Welsh Fund.....	2,504 15
A. Whitney Fund.....	2,756 99
Scholarship Fund.....	972 18
Adam Seybert Fund.....	2,600 00
Alumni Hall Fund.....	6 95
Hector Tyndale Fund.....	684 26
S. W. Roberts Fund.....	45 00
Wharton School Fund.....	9,686 00
Pepper Professorship Fund.....	3,944 44
J. Rhea Barton Fund.....	2,398 24
J. Gillingham Fell Fund.....	2 00
Auxiliary Faculty Medicine Fund.....	1,841 68
Leidy Chair Fund.....	64 80
Botanic Garden Fund.....	92 00
Department of Biology Fund.....	60 00
I. V. Williamson Fund.....	2,614 73
George S. Pepper Residuary Legatee Fund.....	250 00
Francis S. Pepper Fund.....	202 50
Chair of Pedagogy Fund.....	13 88
John C. Ropes Fund.....	6 91
Henry Reed Fund.....	38 86
Latin Prize Fund.....	55 51
Oratory Prize Fund.....	19 43
English Composition Prize Fund.....	11 08
J. Warner Yardley Prize Fund.....	27 76
Class 1880 Prize Fund.....	50 00
Allen Memorial Prize Fund.....	52 50
Law School Prize Fund.....	40 00
C. P. Krauth Library Fund.....	88 56
Agricultural Library Fund.....	20 00
Pepper Medical Library Fund.....	397 60
Tobias Wagner Library Fund.....	482 36
Lippincott Library Fund.....	439 80

Isaac Norris Library Fund.....	\$281 58
Reese Wall Flower Fund.....	1,607 38
Veterinary Fund.....	353 15
Houston Hall Endowment Fund.....	27 76
Dormitory Fund.....	859 29
Department of Law Fund.....	308 00
John F. Frazer Fund.....	248 50
Department of Hygiene Fund.....	6,288 39
Thomas A. Scott Fellowship Fund.....	537 50
Bennett Graduate Department for Women Fund.....	903 00
A. S. Biddle Fund.....	1,048 50
Simon Muhr Fund.....	435 00
George L. Harrison Foundation Fund.....	30,957 26
Comegys Library Fund.....	3 66
John Stewardson Memorial Fund.....	494 00
	<hr/>
	\$97,090 61

## ADMINISTRATION ACCOUNT.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1897, TO AUGUST 31,  
1898, INCLUSIVE.

Balance, August 31, 1897..... \$1,512 34

## Receipts:

From Tuition Fees.....	\$321,911 03	
“ Rents and charges of Dormitories, in- cluding receipts from Bennett Hall.	28,202 77	
“ Graduation Fees, Certificates, Di- plomas .....	2,545 00	
“ Income from Trust Investments.....	66,911 31	
“ Trusts for Special Administration purposes transferred.....	37,065 61	
“ Advances to Trusts repaid.....	85,631 93	
“ Interest on Bank Balances.....	1,075 70	
“ Bond Interest Account for Current Loans .....	3,829 07	
“ Temporary Loan.....	25,000 00	
“ Departments—		
Central Light & Heat Station.....	26,367 12	
Repairs .....	8,217 14	
Veterinary Hospital.....	7,976 92	
“ Miscellaneous .....	228 52	
	<hr/>	614,962 12
		<hr/>
		\$616,474 46

## Expenditures:

Salaries, Education.....	\$297,854 50	
Salaries, Administration.....	60,949 38	
Current Expense Accounts.....	177,510 30	
Interest .....	9,319 14	
Advances to Trusts.....	38,831 33	
Transfer of Administration Accounts to Trusts .....	10,557 18	
Temporary Loan repaid.....	2,541 45	
	<hr/>	597,563 28
		<hr/>
Balance .....		\$18,911 18

# ANALYSIS OF ADMINISTRATION ACCOUNT.

FOR THE FISCAL YEAR ENDING AUGUST 31, 1898.

		Surplus.	Deficit.
College:			
Tuition Fees.....	\$83,066 17		
Income .....	35,482 22		
	<hr/>	\$118,548 39	
Salaries and Current Exp.	204,724 65		
	<hr/>		\$86,176 26
Department of Medicine:			
Tuition Fees.....	\$136,428 90		
Income .....	2,400 24		
	<hr/>	\$138,829 14	
Salaries and Current Exp.	131,931 40		
	<hr/>	\$6,897 74	
Department of Law:			
Tuition Fees.....	\$49,523 82		
Income .....	1,376 50		
	<hr/>	\$50,900 32	
Salaries and Current Exp.	56,799 63		
	<hr/>		5,899 31
Department of Dentistry:			
Tuition Fees.....	\$52,301 77		
Salaries and Current Exp.	42,798 84		
	<hr/>		9,502 93
Department of Hygiene:			
Tuition Fees.....	\$100 00		
Income .....	11,037 76		
	<hr/>	\$11,137 76	
Salaries and Current Exp.	7,558 94		
	<hr/>		3,578 82
George L. Harrison Foundation:			
Fellowships .....	\$13,073 78		
Appro. under the Trust..	13,073 78		
	<hr/>		
Veterinary Department:			
Tuition Fees.....	\$3,057 15		
Donations .....	5,000 00		
	<hr/>	\$8,057 15	
Salaries and Current Exp.	7,725 73		
	<hr/>		331 42



	Surplus.	Deficit.
Veterinary Hospital:		
Receipts .....	\$7,976 92	
Salaries and Current Exp.	8,733 37	
	<hr/>	\$756 45
Department of Repairs:		
Receipts .....	\$8,217 14	
Salaries and Current Exp.	12,902 23	
	<hr/>	4,685 09
Dormitories, including Bennett Hall:		
Receipts .....	\$29,663 37	
Salaries and Current Exp.	18,211 21	
	<hr/>	\$11,452 16
Central Light and Heat Station:		
Receipts .....	\$26,367 12	
Salaries and Current Exp.	26,564 09	
	<hr/>	196 97

## SUMMARY.

## Deficits:

College .....	\$86,176 26
Department of Law.....	5,899 31
Department of Repairs.....	4,685 09
Veterinary Hospital.....	756 45
Central Station.....	196 97
	<hr/>
	97,714 08

## Surplus:

Department of Medicine.....	\$6,897 74
Department of Dentistry.....	9,502 93
Department of Hygiene.....	3,578 82
Veterinary Department.....	331 42
Dormitories .....	11,452 16
	<hr/>
	31,763 07
	<hr/>
Net deficit.....	\$65,951 01

## HOSPITAL.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1897, TO AUGUST 31,  
1898, INCLUSIVE.

Balance August 31, 1897..... \$13,852 70

## Receipts:

Income from Invested Funds.....	\$39,724 60
Receipts from Patients' Board, etc.....	32,526 66
Interest on deposits in Bank.....	371 28
Loan to Trusts repaid.....	1,264 35
State of Penna., Maintenance of Hospital....	22,500 00
State of Penna., Maintenance of Maternity Hospital .....	2,500 00
Returned Insurance Premium.....	337 50
Donations for Current Expense.....	6,032 47
Donations for Endowment.....	70,083 63
Investments Sold and Paid Off.....	97,349 58
	<hr/>
	272,690 07
Total Receipts.....	<hr/>
	\$286,542 77

## Expenditures:

Current Expense, Hospital.....	\$91,142 24
Maintenance Maternity Hospital.....	2,567 00
Buildings and Repairs.....	5,157 41
Loans to Trusts.....	1,517 71
Taxes, Insurance, Water Rent, etc.....	2,382 13
Interest .....	1,250 00
Central Light & Heat Station.....	9,239 51
Bonds paid off and Interest.....	2,052 00
Investments made.....	152,110 00
Accrued Interest paid on Investments.....	231 09
	<hr/>
Total Expenditures.....	267,649 09
	<hr/>
Balance .....	\$18,893 68

## HOSPITAL TRUST ACCOUNT.

## Income from Investments:

General Fund (including Bed Funds).....	\$14,198 04	
Hahn Ward Fund.....	3,512 41	
Alumni Ward Fund.....	487 56	
Mrs. G. W. Norris Fund.....	605 84	
Bement Fund.....	350 00	
Ward Chronic Diseases Fund.....	6,263 50	
I. V. Williamson Fund.....	2,616 11	
Children's Ward Fund.....	1 00	
Henry Seybert Fund.....	3,870 93	
George S. Pepper Fund.....	1,515 64	
Recto-Genito-Urinary Diseases Fund.....	216 00	
Anna M. Powers Bed Fund.....	361 56	
Mary W. Eskens Bed Fund.....	300 00	
Agnew Hospital Fund.....	257 92	
Agnew Bequest for care of Sick Children....	2,962 35	
Agnew Bequest for Maternity Hospital.....	60 00	
Andrew C. Butler Fund.....	240 00	
Ligonier Free Bed Fund.....	1,431 54	
Children's Orthopædic Ward Fund.....	474 20	
<hr/>		
Total Receipts account Income.....		\$39,724 60

## DONATIONS TO THE UNIVERSITY.

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*From August 31, 1897, to August 31, 1898.*

ARCHÆOLOGY AND PALEONTOLOGY—  
DEPARTMENT OF.

Archæological Association.....	\$500 00	
Archæological Association, for Museum of Science and Art.....	19,000 00	
	<hr/>	\$19,500 00

ARCHITECTURE—COLLECTION OF CASTS.

Mrs. Alexander Biddle.....	\$20 00	
	<hr/>	20 00

ARCHITECTURE—EQUIPMENT.

Bodine, Samuel T.....	\$500 00	
Borie, Beauveau.....	500 00	
Burk Brothers.....	500 00	
Coxe, Eckley B., Jr.....	500 00	
	<hr/>	2,000 00

ARCHITECTURE—LECTURE COURSE.

Fitler, Mrs. Josephine R.....	\$300 00	
Harrison, Mrs. C. C.....	250 00	
Rosengarten, Miss Fanny.....	25 00	
	<hr/>	575 00

ARCHITECTURE—PEABODY FUND.

Peabody, Robert S.....	\$100 00	
	<hr/>	100 00

BENNETT ENDOWMENT—GRADUATE DEPARTMENT  
FOR WOMEN.

Bennett, Joseph M.—Properties valued at.....	\$25,000 00	
	<hr/>	25,000 00

## DONATIONS TO THE UNIVERSITY.

## BOTANIC GARDEN FUND.

Bunting, Martha.....	\$5 00	
Burpee, W. A.....	100 00	
Croft, Samuel.....	500 00	
Dougherty, T. H.....	25 00	
Harris, Joseph S.....	25 00	
Le Boutillier, Roberts.....	25 00	
M'Fadden, George H.....	25 00	
Morwitz, Joseph.....	100 00	
Myers, Dr. Jane V.....	15 00	
Sill, Mrs. Harold V.....	25 00	
Welsh, William, Jr.....	25 00	
Yarnall, Anna.....	25 00	
	<hr/>	\$895 00

## CIVIL ENGINEERING EQUIPMENT FUND.

J. G. Brill Company.....	\$500 00	
	<hr/>	500 00

## DEBATING TEAM OF 1899.

Team of 1898.....	\$17 34	
	<hr/>	17 34

## DINING HALL FUND.

Lipman, Lewis H.....	\$10 00	
	<hr/>	10 00

## DORMITORY BUILDING FUND.

Baird, John E.....	\$5,000 00	
	<hr/>	5,000 00

## DORMITORY—1897's HOUSE.

Ashbrook, W. S.....	\$15 00
Baugh, Mrs. L. M.....	500 00
Benkert, William C.....	10 00
Brock, J. S.....	10 00
Clark, F. C.....	30 00
Colladay, T. F.....	10 00
Cowperthwait, C. T.....	50 00
Dolan, C. W.....	40 00
Dunn, D. S.....	2 00
Earle, Edgar P.....	10 00
Farnum, Paul.....	30 00
Frazier, G. H.....	100 00

DONATIONS TO THE UNIVERSITY.

Gest, Mrs. J. M.....	\$250 00
Graham, F. W.....	150 00
Griscom, C. A., Jr.....	50 00
Hancock, G. B.....	5 00
Hawkins, J. D.....	6 00
Houston, S. F.....	8,000 00
Huckel, Oliver.....	20 00
Kenney, E. F.....	7 50
Latta, T. L.....	30 00
Lee, Charles R.....	5 00
Lee, Leighton.....	10 00
Martin, G. L.....	5 00
Martin, W. P.....	5 00
Magee, James F., Jr.....	15 00
Miles, Tucker.....	5 00
Pepper, David.....	2 50
Pepper, G. W.....	50 00
Peterson, R. E.....	2 50
Pryor, F. J., Jr.....	5 00
Randolph, P. S. P.....	60 00
Reath, T. W.....	10 00
Redifer, A. P.....	5 00
Richards, Wilson.....	10 00
Saunders, Mrs. W. B.....	250 00
Seyfert, H. H.....	5 00
Smith, J. Somers.....	50 00
Smith, W. P.....	5 00
Townsend, C. C.....	50 00
Wagner, Joseph C.....	10 00
Weaver, John A.....	5 00
Weaver, Joseph C.....	10 00
Whitaker, J. G. N.....	25 00
White, Louis P.....	5 00
	<hr/>
	\$9,930 50

GENERAL FUND.

Allen, Edmund.....	\$500 00
Athletic Association.....	3,750 00
Bailey, John T.....	500 00
Baird, Thomas E.....	1,500 00
Blanchard, The Misses.....	1,000 00
Boulton, William B.....	1,000 00
Button, Conyers.....	500 00
Bushnell, Charles E.....	250 00
Clark, Clarence H.....	500 00





DONATIONS TO THE UNIVERSITY.

HOUSTON HALL FUND.

E. D. Faries.....	\$8 00
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\$8 00

IMPROVEMENT OF GROUNDS.

Brewster, F. Carroll.....	\$10 00
Bonnell, George B.....	50 00
Cash .....	50 00
Coxe, Eckley B., Jr.....	200 00
Coxe, Miss Rebecca.....	500 00
Dreer, William F.....	250 00
Frishmuth, E. H., Jr.....	500 00
Frazier, H. M.....	25 00
Harrison, Mrs. George L.....	25 00
Henry, Mrs. Charles W.....	200 00
Mack, John M.....	500 00
Magee, Miss Fanny S.....	200 00
Montgomery, Thomas H.....	25 00
Rosengarten, Miss Fanny.....	250 00
Strawbridge, Justus C.....	1,000 00
Thompson, Mrs. J. Edgar.....	500 00
Wistar, Mrs. S. B.....	25 00
Wood, George.....	500 00
Woodward, Mrs. George.....	500 00

5,310 00

LAW SCHOOL BUILDING FUND.

Antelo, A. J.....	\$500 00
Bell, John C.....	500 00
Biddle, Mrs. George W.....	1,000 00
Biddle & Ward.....	500 00
Bispham, George Tucker.....	1,000 00
Bohlen, Francis H.....	250 00
Brown, T. Wistar.....	500 00
Brown, William H.....	30 00
Bullitt, John C.....	1,000 00
Burroughs, Joseph H.....	125 00
Cadwalader, John L.....	1,000 00
Carson, William H.....	150 00
Castner, S., Jr.....	2,500 00
Clapp, B. Frank.....	250 00
Clark, E. W.....	250 00
Crawford, George L., and Henry C. Loughlin...	250 00
Dechert, Henry M.....	250 00

## DONATIONS TO THE UNIVERSITY.

Dickson, Samuel.....	\$1,000 00
Duane, Russell.....	250 00
Dundas, Ralph Wurtz.....	1,000 00
Edmunds, George F.....	100 00
Fraley, Joseph C.....	500 00
"From a friend".....	2,500 00
Gest, John B.....	1,000 00
Gowen, F. I.....	500 00
Harvey, Alexander E.....	1,000 00
Hart, Thomas, Jr.....	1,000 00
Henry, Morton P.....	100 00
Huey, Samuel B.....	250 00
Junkin, George.....	500 00
Lewis, Henry.....	500 00
Lewis, William Draper.....	100 00
Lex, William Henry.....	500 00
M'Kean, Thomas.....	25,000 00
Magee, Horace.....	250 00
Meigs, William M.....	100 00
Morgan, Randall.....	1,250 00
O'Callaghan, M. J.....	250 00
Pettit, Silas W.....	1,000 00
Pennypacker, Samuel W.....	500 00
Rawle, William Brooke.....	1,000 00
Rosengarten, Frank H.....	500 00
Rosengarten, Joseph G.....	2,000 00
Ritchié, Craig D.....	100 00
Sibley, Edward A.....	250 00
Smith, Walter George.....	500 00
Smith, C. Morton.....	500 00
Stewart, Mrs. Thomas S.....	250 00
Vaux, J. Waln.....	1,000 00
Ward, H. G.....	500 00
White, Richard P.....	1,000 00
Wistar, William Rotch.....	100 00
Wickersham, George W.....	500 00
<hr/>	
	\$57,405 00

## LAW LIBRARY FUND.

Austin, R. L.....	\$50 00
Balch, Thomas Willing.....	20 00
Carson, Hampton L.....	25 00
<hr/>	

DONATIONS TO THE UNIVERSITY.

LECTURE COURSE, STATE OF PENNSYLVANIA.

Foster, Charles F.....	\$20 00	
"C. M. S.".....	1,000 00	
	<hr/>	\$1,020 00

LIBRARY BUILDING FUND.

Estate Wharton Barker.....	\$667 65	
	<hr/>	667 65

LIBRARY—CURRENT EXPENSES.

Archæological Association.....	\$405 00	
Carson, Hampton L.....	300 00	
Frazier, William W.....	3,000 00	
Potter, William.....	27 39	
	<hr/>	3,732 39

LIBRARY—ENGLISH BLUE BOOK FUND.

Miss Mary K. Gibson.....	\$2,500 00	
	<hr/>	2,500 00

NEEDY STUDENTS' FUND.

"A friend".....	\$1,000 00	
Coates, W. M.....	150 00	
Collins, Henry H.....	1,000 00	
Fleisher, Simon B.....	250 00	
Greene, Stephen.....	5,000 00	
Houston, Mrs. S. S.....	5,000 00	
Lloyd, Malcolm.....	500 00	
McCahan, William J.....	1,000 00	
Paul, Mary W.....	250 00	
Waddingham, Wilson.....	1,000 00	
	<hr/>	15,150 00

PRIMARY ELECTION—INVESTIGATION FUND.

Rosengarten, J. G.....	\$50 00	
	<hr/>	50 00

PRIZE FUNDS.

Latin Prize Fund:

Alumni Association.....	\$25 00	
	<hr/>	25 00

Oratory Prize Fund:

Alumni Association.....	\$22 00	
	<hr/>	22 00

## DONATIONS TO THE UNIVERSITY.

E. Delano Prize Fund:		
Delano, Eugene.....	\$50 00	
	<hr/>	\$50 00
Frazier Oratory Prize Fund:		
Frazier, W. W., Jr.....	\$100 00	
	<hr/>	100 00
Comegys Prize Fund:		
Comegys, B. B.....	\$50 00	
	<hr/>	50 00
Dr. S. Weir Mitchell Prize Fund:		
Dr. S. Weir Mitchell.....	\$25 00	
	<hr/>	25 00

## SEMITIC DEPARTMENT.

Sulzberger, Hon. M.....	\$100 00	
	<hr/>	100 00

## STATE APPROPRIATION.

State of Pennsylvania.....	\$25,000 00	
	<hr/>	25,000 00

## UNIVERSITY PUBLICATION FUND.

Alumni Association.....	\$100 00	
Cohen, Charles J.....	100 00	
Craig, John F.....	100 00	
Cuyler, Thomas De Witt.....	100 00	
Dale, Richard C.....	200 00	
Dingee, John H.....	100 00	
Dickson, Samuel.....	200 00	
Duane, James May.....	100 00	
Erringer, J. L.....	100 00	
Gowen, F. I.....	100 00	
Jones, Thomas F.....	100 00	
Joyce, William H.....	200 00	
McFadden, George.....	50 00	
Penniman, J. H.....	10 00	
Riebenack, M.....	200 00	
Rosengarten, Joseph G.....	412 65	
Sims, J. C.....	200 00	
Sparhawk, John, Jr.....	200 00	
	<hr/>	2,572 65

## VETERINARY PUBLICATION FUND.

Caner, Harrison K.....	\$500 00	
	<hr/>	500 00

DONATIONS TO THE UNIVERSITY.

VETERINARY DEPARTMENT FUND.

Goodwin, Mrs. J. S.....	\$1,000 00	
Lippincott, Craige.....	1,000 00	
Lippincott, Mrs. J. B.....	1,000 00	
Lippincott, J. Bertram.....	1,000 00	
Lippincott, Walter.....	1,000 00	
	<hr/>	\$5,000 00
		<hr/>
		\$307,378 73



## DONATIONS TO THE UNIVERSITY HOSPITAL.

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*From August 31, 1897, to August 31, 1898.*

AGNEW MEMORIAL—PROFESSORS' FURNISHING  
FUND.

Collected by Dr. J. William White.....	\$1,841 54	
	<hr/>	\$1,841 54

A. SYDNEY ROBERTS' APPARATUS FUND—  
CHILDREN'S ORTHOPÆDIC WARD.

Citizens' Committee.....	\$264 54	
Roberts, Miss Elizabeth C.....	3,000 00	
Roberts, Miss Frances A.....	3,000 00	
	<hr/>	6,264 54

## CHILDREN'S ORTHOPÆDIC WARD.

Austin, Mrs James S.....	\$200 00	
Bergner, Mrs. C. W.....	200 00	
Burnham, Williams & Co., securities valued at..	3,000 00	
Clarke, Mrs. E. W.....	200 00	
Collins, Mrs. H. H.....	200 00	
Conrad, Mrs. T. K.....	200 00	
Dickson, Mrs. Samuel.....	200 00	
Freedley, Mrs. W. G.....	200 00	
Freedley, Mrs. J. K.....	200 00	
Harris, Mrs. Mary Powers.....	200 00	
Porter, Mrs. William W.....	200 00	
Reed, Mrs. Anna L.....	200 00	
Saturday Club of New Jersey.....	200 00	
Townsend, Mrs. J. W.....	200 00	
Estate of William Lyman, deceased.....	5,000 00	
	<hr/>	10,600 00

## FURNISHING STUDENTS' WARD FUND.

College .....	\$99 50	
Department of Dentistry.....	70 60	
Department of Law.....	50 50	
Department of Medicine.....	186 25	
Department of Philosophy.....	26 30	
Veterinary Department.....	16 75	
	<hr/>	

449 90

DONATIONS TO THE HOSPITAL.

GENERAL FUND.

Allison Manufacturing Co.....	\$600 00	
Charity Ball Committee.....	2,200 00	
Estate Andrew C. Butler, deceased.....	5,432 67	
Estate W. O. B. Merrill.....	2,000 00	
State of Pennsylvania.....	25,000 00	
Sundries at Hospital.....	32 47	
Trustees George S. Pepper Fund.....	2,250 00	
	<hr/>	\$37,515 14

LADIES' FUND, MATERNITY HOSPITAL.

"In Memoriam".....	\$100 00	
Woodward, Mrs. G. S.....	100 00	
	<hr/>	200 00

LIGONIER FREE BEDS.

Estate Dr. John McGowan, deceased, property valued at.....	\$38,209 88	
	<hr/>	38,209 88

MOULTON H. FORREST BED FUND.

Forrest, Mrs. Emma L.....	\$600 00	
	<hr/>	600 00

NURSES' HOME BUILDING FUND.

Adams, Mrs. J. Howe.....	\$185 00	
Ashhurst, Dr. John, Jr.....	20 00	
Baker, George Fales.....	100 00	
Bispham, Mrs. John S.....	100 00	
Clark, Clarence H.....	100 00	
Cleeman, Dr. R. A.....	100 00	
Darlington, Joseph G.....	300 00	
Drexel, Mrs. George W. Childs.....	100 00	
Godfrey, Lincoln.....	500 00	
Harris, Mrs. J. Campbell.....	300 00	
Harris, Mrs. Mary Powers.....	300 00	
Harrison, Mrs. C. C.....	100 00	
Jenks, John S.....	10 00	
McFadden, George H.....	250 00	
Mather, Charles E.....	250 00	
Norris, Dr. William F.....	200 00	
Pepper, Dr. William.....	100 00	
Richardson, Mrs. C. M.....	100 00	

## DONATIONS TO THE HOSPITAL.

Rosengarten, Miss Fanny.....	\$100 00
Rosengarten, Joseph G.....	100 00
Sailer, John.....	100 00
Sharpless, Samuel J.....	20 00
Smith, Walter George.....	100 00
Turner, Mrs. Charles P.....	250 00
Tyson, Dr. James.....	50 00
Van Renssalaer, Mrs. S. D.....	100 00
Ward, Miss Juliana.....	500 00
Wheeler, Miss Ethel B.....	1,000 00
White, Dr. J. William.....	300 00
Willard, Dr. De Forest.....	100 00
Wood, Dr. H. C.....	50 00
	<hr/>
	\$5,885 00
	<hr/>
	\$101,566 00

The following, received too late for publication in the Report for 1896-97, is now appended for general information. All the items of receipt and expenditure were accounted for in former reports with the exception of donation from Messrs. Burnham, Williams & Co. and cash for Apparatus Fund, which are duly credited this year:

## REPORT OF CITIZENS' COMMITTEE.

## D. HAYES AGNEW MEMORIAL CHILDREN'S WARD.

Total Receipts as per Schedule annexed.....	\$40,684 51
Disbursements:	
1894, May 1, Building Fund to Treasurer....	\$7,490 40
1894, May 1, Mortgages.....	5,000 00
1894, May 1, Mortgages.....	12,500 00
1894, December 21, Treasurer.....	3,193 98
1896, July 14, Treasurer.....	287 50
1896, July 24, Treasurer.....	1,000 00
1896, September 28, Treasurer.....	316 05
1897, January 23, Treasurer.....	1,128 35
1897, June 11, Treasurer.....	200 00
Furnishing and Equipment paid by Committee .....	6,080 27
General Expenses paid by Committee.....	223 42
1897, December, Donation Burnham, Williams & Co.....	3,000 00
1897, December, cash for Apparatus Fund..	264 54
	<hr/>
	40,684 51

DONATIONS TO THE HOSPITAL.

Contributors to D. Hayes Agnew Memorial  
Children's Ward:

Dr. Alphonso Irwin.....	\$30 00
Mrs. Thomas H. Powers.....	200 00
L. H. Redner.....	25 00
G. W. Knowles.....	100 00
Dr. N. J. Pittman.....	5 00
Dr. Herman Fritsch.....	10 00
Miss Dorothy E. Henderson.....	25 00
D. H. Agnew Adams.....	25 00
Marguerite Adams.....	25 00
Dr. D. Webster Prentiss.....	10 00
Dr. S. R. Skillern.....	10 00
Sarah M. Dickson.....	25 00
Dr. David W. Yandell.....	10 00
Mrs. C. L. Haddock.....	50 00
Dr. Isaac C. Gable.....	10 00
Dr. William R. Blakeslee.....	5 00
J. Lister.....	25 60
Rev. W. B. Skillman.....	25 00
Rev. J. Addison Henry.....	100 00
Dr. R. M. Girvin.....	50 00
Mrs. Elias D. Kennedy.....	300 00
Mrs. Lucy H. Hutt.....	25 00
Eugene Delano.....	500 00
Dr. Lawrence Turnbull.....	10 00
Joseph G. Rosengarten.....	1,000 00
Dr. J. M. Da Costa.....	100 00
Dr. Traill Green.....	10 00
Dr. Thomas Yarrow.....	25 00
George W. Hall.....	250 00
Clarence H. Clark.....	1,000 00
A. E. Irwin.....	50 00
Dr. John B. Chapin.....	10 00
Dr. O. H. Allis.....	10 00
Mrs. M. C. Agnew, cash.....	7,490 40
Mrs. M. C. Agnew, mortgages.....	5,000 00
Mrs. M. C. Agnew, mortgages.....	12,500 00
Dr. S. Creadick.....	25 00
H. H. Houston.....	1,000 00
Mrs. E. W. Clark.....	1,000 00
Dr. H. C. Eckstein.....	100 00
Dr. Samuel S. Stryker.....	25 00
Dr. George Y. Taylor (china).....	25 00

## DONATIONS TO THE HOSPITAL.

C. Arnold.....	\$100 00
James Spear.....	1,000 00
Miss Susan E. Stuart.....	10 00

Per Mrs. M. S. Townsend, Treasurer Ladies'  
Auxiliary Committee Children's Orthopædic  
Ward:

Mrs. Thomas K. Conrad.....	1,000 00
Mrs. J. Campbell Harris.....	1,000 00
Mr. and Mrs. H. H. Collins.....	1,500 00
Mrs. De Forest Willard.....	1,000 00
Mrs. Richard J. Levis.....	100 00
Mrs. Anna L. Reed.....	200 00

Burnham, Williams & Co.....	3,000 00
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Interest .....	553 51
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\$40,684 51

Respectfully submitted:

GEORGE L. HARRISON, JR., *Treasurer.*

AUGUST 31, 1898.

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